

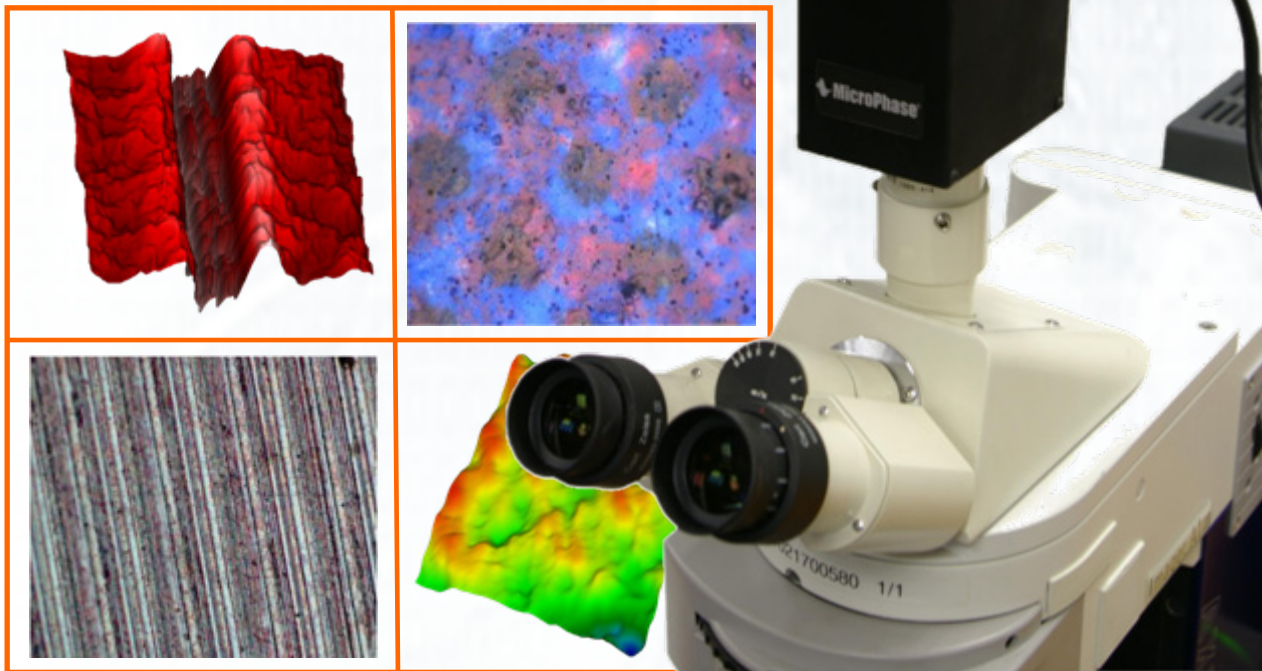
# All-In-One 3D Digital Microscope Camera



## High Resolution Digital Microscope Camera

Fast & Accurate 3D Surface Analysis

Multiple Imaging Capabilities

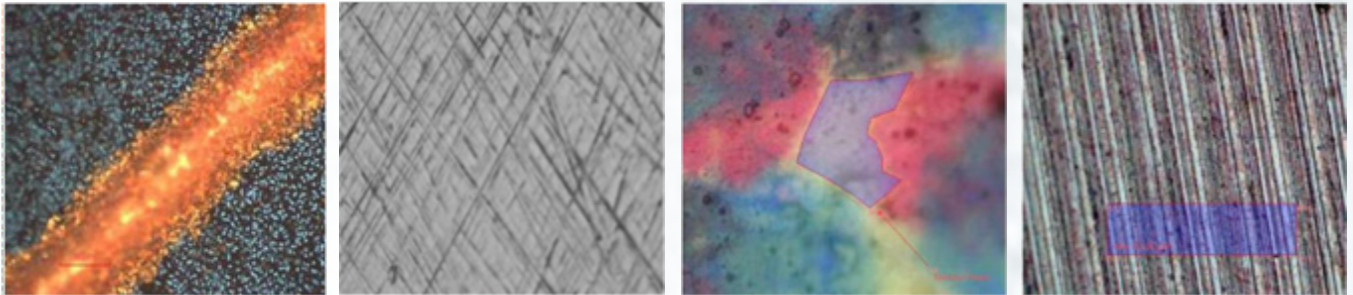


### A Smart and Affordable Imaging Solution

Take advantage of the latest advances in image processing and wavefront sensing. MicroPhase will power up your microscope with ultimate imaging tools without complex and expensive equipment.

### High Resolution Digital Microscope Camera

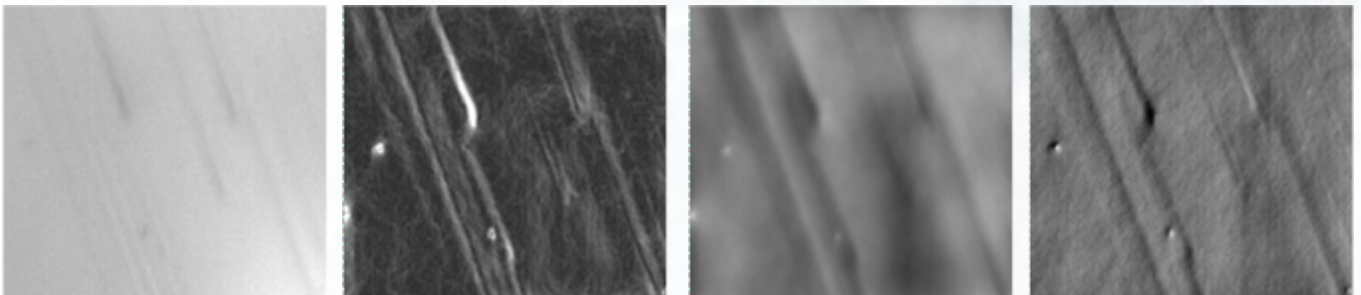
2 Megapixel CCD • Auto-focus • 2D Measurements • Graphics Overlay • Report



*MicroPhase provides sharp & crisp digital images in real time, featuring automatic calibration, auto-focus and all necessary tools for digital image documentation.*

### Multiple Imaging Capabilities Using Bright Field Objectives

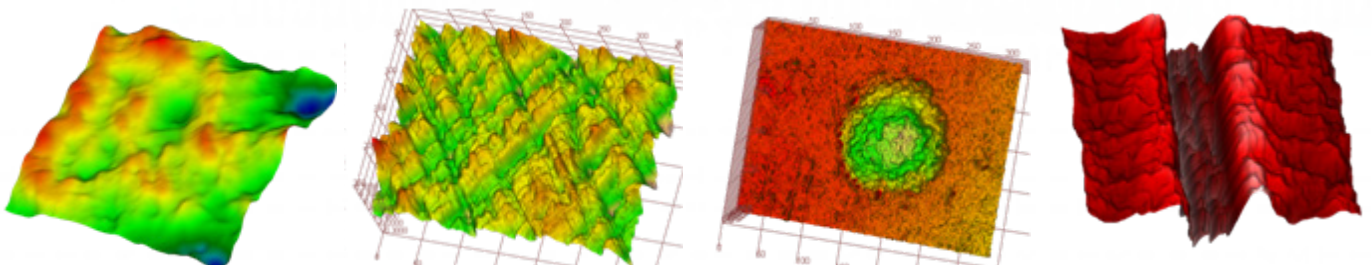
Phase Contrast • DarkField • Differential Interference Contrast • Extended Depth of Field



*MicroPhase performs extended observation modes without specialized optics: DF, Phase & DIC are readily available using a standard bright field microscope.*

### 3D Surface Metrology

Surface Shape • Roughness • Waviness • Step Height

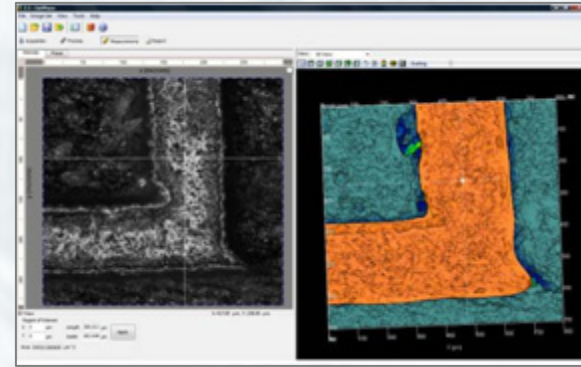


*MicroPhase is the quickest and easiest way for surface topography measurements compared to complex, bulky and expensive systems.*

## Smart Hardware Architecture

No internal or external motorization, no additional accessories for the microscope are required, MicroPhase is connected to your PC using a single USB2 connection. Accurate calibration is achieved using an automated procedure and stored in an internal memory to prevent any losses.

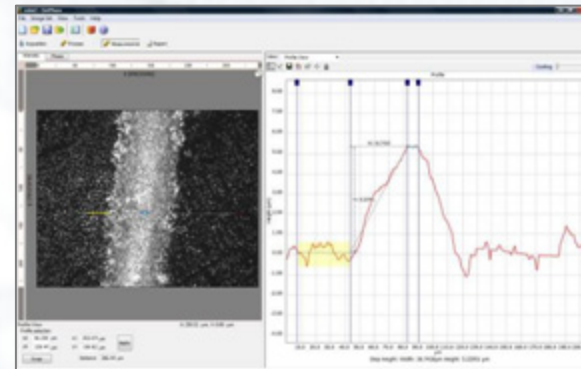
- **Reliable hardware & software architecture**
- **Compatible with manual stand microscope with video port**
- **Maintenance free: no bundles or assemblies**



## Powerful Imaging Tool

High resolution BF, DF, Ph, DIC, and 3D images can be acquired with conventional bright field objectives using digital phase contrast technique. In addition, MicroPhase provides 2D measurements and image documentation tools.

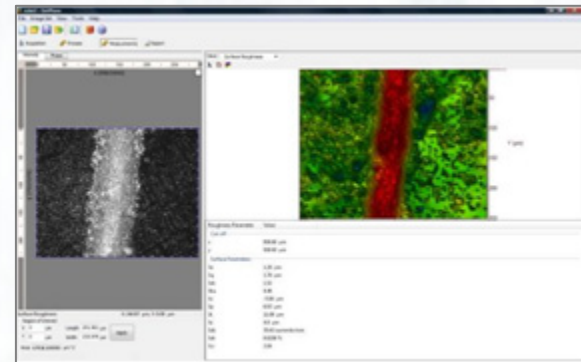
- **Reveals finest structure details without specialized optics**
- **On click Image documentation with multiple views**
- **Automatic image fusion (Extended Depth of Field)**
- **2D measurements & report**



## Fast & Accurate 3D Surface Metrology

MicroPhase performs 3D acquisition and analysis in a remarkable fast and easy way. Non contact optical surface profiling is highly repeatable.

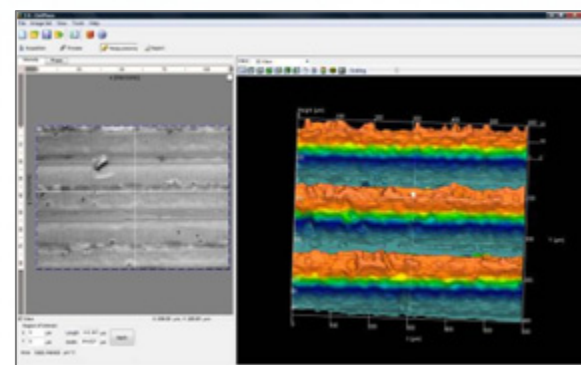
- **3D surface analysis in micrometer and nanometer range**
- **Measurement capabilities from smooth to rough surfaces**
- **ISO Roughness and step heights measurements**
- **High throughput thanks to fast acquisition & processing time**



## Advanced Digital Imaging for Material Sciences

The innovative MicroPhase optical device fulfill the needs of R&D, quality control laboratories and shop floor:

- **Metal, Paint & Coatings, Ceramic, Polymers**
- **Semiconductor Materials**
- **Gemology, Museum**
- **Forensics**



## Powered by 2D /3D Software **GetPhase®**

The 3D Digital Microscope Cameras include GetPhase® software compatible with Windows 7,XP & Vista. GetPhase® provides comprehensive tools from automatic acquisition to 2D / 3D image analysis, documentation and reports.

|                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• <b>Acquisition &amp; Processing</b></li> <li>- Automatic Calibration</li> <li>- 2D / 3D Acquisition Wizard</li> <li>- Auto Focus &amp; Exposure</li> <li>- Region-of-Interest</li> <li>- Navigator</li> </ul> | <ul style="list-style-type: none"> <li>• <b>2D/3D Display &amp; Measurements</b></li> <li>- BF, DF, Ph, DIC, 3D views</li> <li>- Text &amp; Graphics overlay</li> <li>- 2D / 3D measurements</li> <li>- Image fusion (EDF)</li> <li>- Roughness ISO standards</li> <li>- Step Height Measurements</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Image Data Export &amp; Report</b></li> <li>- Project Archiving</li> <li>- 3D Data in Excel Format</li> <li>- 3D Data for 3<sup>rd</sup> Party Software</li> <li>- Report Editor</li> <li>- HTML Compatible Presentation</li> </ul> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Performances & Technical Specifications

Performances are microscope objectives dependent. The table below is given as an example.

| MicroPhase Model                                          | DMC100                                   | DMC150                                  | DMC200                                |             |              |
|-----------------------------------------------------------|------------------------------------------|-----------------------------------------|---------------------------------------|-------------|--------------|
| Camera                                                    | CMOS 1280 x 1024<br>5.20µm square pixels | CCD 1392 x 1040<br>4.65µm square pixels | CCD 1616x1216<br>4.40µm square pixels |             |              |
| Frame Rate, Dynamic Range                                 | 30fps at 1280x1024,<br>60dB              | 15fps at 1392x1040,<br>60dB             | 12 fps at 1616x1216,<br>60dB          |             |              |
| Performance with DMC100 according objective magnification |                                          |                                         |                                       |             |              |
| Microscope Objectives                                     | 5x                                       | 10x                                     | 20x                                   | 50x         | 100x         |
| Measurement Area (X,Y), mm <sup>2</sup>                   | 1.3 x 1.0                                | 066 x 0.53                              | 0.33 x 0.27                           | 0.13 x 0.10 | 0.065 x 0.05 |
| Lateral X,Y resolution, µm                                | 2.8                                      | 1.4                                     | 0.9                                   | 0.5         | 0.4          |
| Max Axial Z range, µm                                     | 1000                                     | 250                                     | 62.5                                  | 10          | 2.5          |
| Max Axial (Z) Resolution, µm                              | 0.35                                     | 0.09                                    | 0.04                                  | 0.011       | 0.008        |
| Measurement Time, seconds**                               | <5 seconds                               |                                         |                                       |             |              |
| Microscope Interface                                      | Video Port (C-Mount Compatible)          |                                         |                                       |             |              |
| Software & Hardware Requirements                          | 7, XP or Vista - USB2.0 port             |                                         |                                       |             |              |
| Head Dimensions (L x W x H), mm                           | 114 x 72 x 171                           |                                         |                                       |             |              |
| Weight, kg                                                | 1.15                                     |                                         |                                       |             |              |

\* optional scanning stage: 50 x 50mm & 100x100mm

\*\* With GPU Graphics Processor Unit nVidia type