![ZeeScope]

Compact 3D Digital Microscope

![PhaseView®]

Compact 3D Digital Microscope

- **High Resolution Digital Microscopy**
- **Accurate Z Depth Measurement**
- **Fast 3D Acquisition and Analysis**
- **Automatic Depth Composition**
- **3D Surface Metrology**
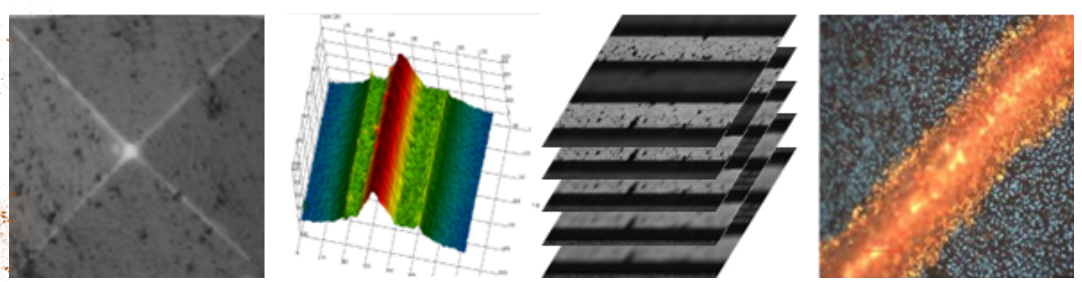
PORTABLE 3D DIGITAL MICROSCOPE
The Easiest Way To 3D Imaging

- • No Moving Parts •
- • All-In-One Device •
- • Maintenance Free •
- • No Costly Accessories •
- • User Friendly Software•

ZeeScope Head

Fast Z scanning, Flexible Z range & Nanopositioning Robust & reliable optical device

3 Camera models available: 1MP - 2MP - 5MP

Built-in coaxial LED light source

Multiple fixturing threads

Interchangeable objectives

ZeeScope Control Unit

Robust & flexuble cable to Zeescope head

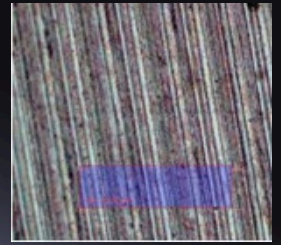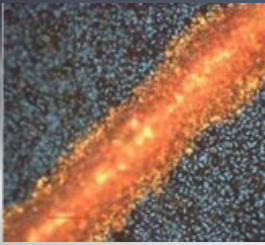**Single USB connection to PC No bulky controllers and cumbersome accessories**

Optional Lithium battery for Field autonomy

PhaseView®

ZeeScope

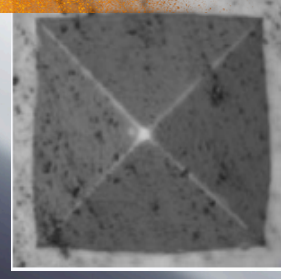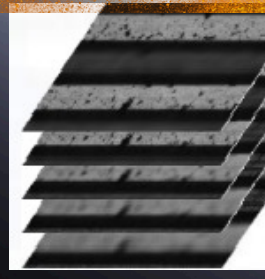## High Resolution Digital Microscope Camera

Megapixel CCD · 2D Measurements · Graphics Overlay · Report

ZeeScope provides sharp & crisp digital images in real time, featuring all necessary tools for digital image documentation in high resolution.

Multiple Imaging Capabilities

AutoFocus · Depth Measurement · Z-Stacking · Extended Depth of Field · 3D Reconstruction
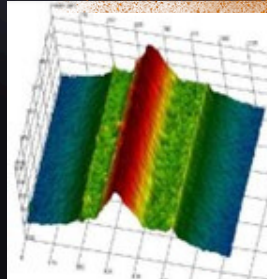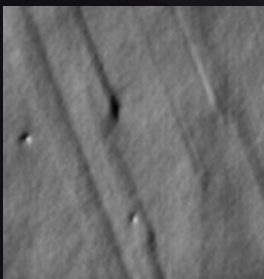
Thanks to its integrated ZeeScan module, the 3D Digital Microscope performs all critical tasks in material microscopy while using a standard upright or inverted microscope.

3D Surface Metrology

Surface Shape · Roughness · Waviness · Step Height
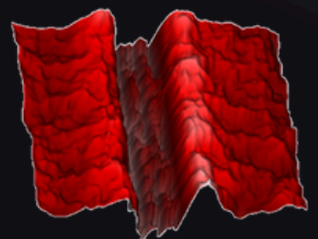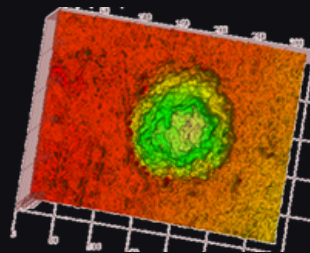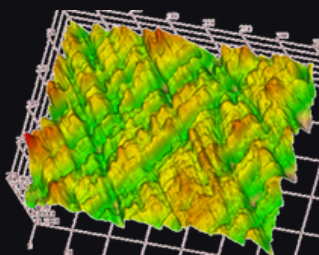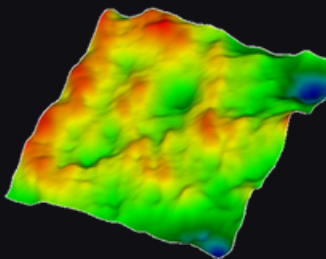
ZeeScope is the quickest and easiest way for precise surface topography measurements compared to complex, bulky and expensive systems.

ZeeScope Applications

Light Portable Microscope For Field Inspection

- On site Quality Control
- Field Inspection
- Maintenance

Applications

Surface Metrology
3D Shape
Roughness
Corrosion analysis
Z Depth
Digs , scratches QC
Surface inspection
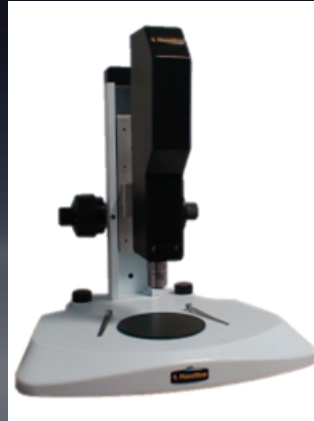
Accurate 3D Microscope For Labs & Shop Floor

- Shop Floor Rapid Testing
- R&D Labs
- QC Laboratories

Industries

Metal Tooling
Printed Board
Medical
Automotive
Aerospace
Semiconductor
Solar Cells
Electrics
Food
Packaging
Wood
Flooring
Adhesive Beads
Weld Seams

3D Industrial Quality Control

- Manufacturing Quality Control
- Shop Floor Diagnostic Tool
- Machine Vision 3D Camera
- Automated Optical Inspection

Smart 3D vision
No Moving Parts
All-In-One Device
Maintenance Free
Affordable Solution
Easy Implementation

ZeeScope **Software**

GetPhase® GUI software (included) is compatible with Windows 8, 7, XP & Vista. GetPhase® provides comprehensive tools from automatic acquisition to 2D / 3D image analysis, documentation and reports. Including Z -stacking, Z height measurement, Image fusion (Extended Depth of Field), 3D reconstruction and measurements, multiple display modes: DIC, Phase, brightfield, darkfield , surface and profile roughness, step height measurements.

API / SDK (optional) for controlling ZeeScope acquisition, routines for Z-stack, 3D reconstruction, EDF, DIC, Phase, and 3D surface analysis.

| Acquisition & Processing	2D/3D Display & Analysis	Image Data Export & Report
- 2D / 3D Acquisition Wizard - Auto Focus & Exposure - Region-of-Interest - Navigator - Stitching - Macro Recording	- BF, DF, Ph, DIC, 3D views - Text & Graphics overlay - 2D / 3D measurements - Image fusion (EDF) - Roughness ISO standards - Step Height Measurements	-Project Archiving -3D Data in Excel Format -3D Data for 3rd Party Software -Report Editor -HTML Compatible Presentation

Powerful Imaging Tool

Z-stacking of high resolution images can be automatically achieved providing image fusion image (Extended depth of Fiel image, Z depth measurement or 3D reconstruction. In addition, GetPhase 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

ZeeScan with GetPhase 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

Smart Hardware Architecture
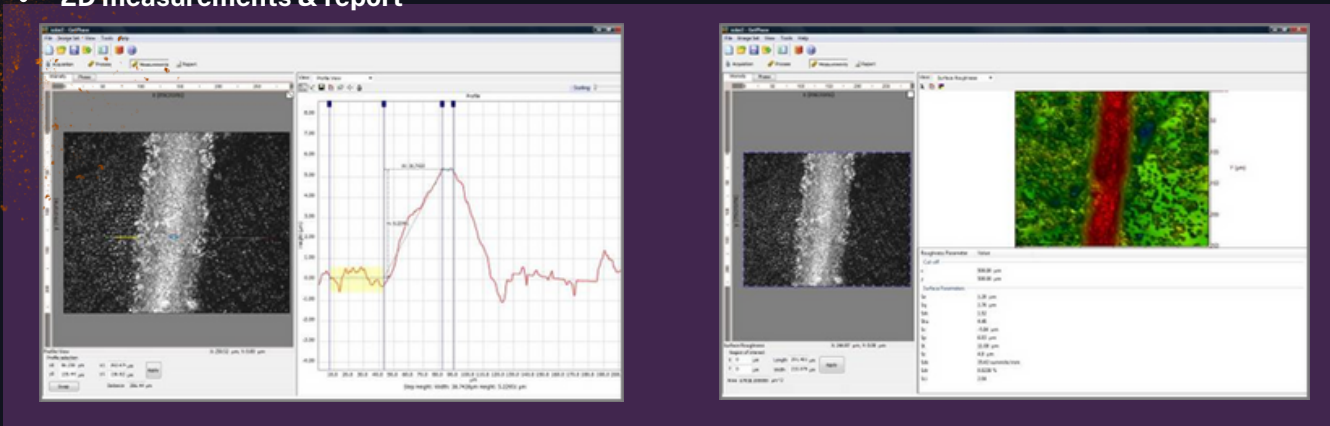
Smart Hardware ZeeScope is an all-in one 3D digital microscope controlled by PC with a single USB2 connection and integrating the proprietary PhaseView ZeeScan optical assembly . Accurate calibration is achieved using an automated procedure and stored in an internal memory to prevent any losses.

	ZeeScope 100	ZeeScope 150	SeeScope 200
Camera	½"CMOS 1280 x 1024 5.2μm square pixels 30fps@full resolution	1/1.8"CCD 1616 x 1216 4.40 square pixels 12fps@full resolution	½"CCD 2560 x 1920 2.20 square pixels 6fps@full resolution
Light source	Built-in coaxial LED light source		
Objectives	Interchangeable objectives (Finite - Infinite type) adapter provided for threads RMS and M25/0.75		
Dimensions & weight ZeeScope Head Control unit	225(H) x 40 (W) x 55(D) mm, 425g 40(H) 158(W) 150(D) mm, 150g		
Power Supply	110/220V AC		
PC Interface	USB 2.0		

3D Measurement Performance

Z range and resolution are objective and c-mount coupler magnification dependant. The table here under gives typical performance for standard objective magnification. For any other magnification, the following formulas can be applied :

Z Range = 60mm / $(G\_Obj)^2$

Z Resolution = Objective Depth Of Field /4

G_Obg = Objective magnification

Objective Mag / NA	Z Range (μm)	Z Resolution (μm)
5X / 0.10	2 400	18,5
10X / 0.25	600	3
20X / 0.45	150	1
50X / 0.8	24	0,25

Z accuracy: 1%
Z Repeatability: 0.35%
Max slope: 90°
XY Spatial resolution determined by camera resolution and objective magnification

Roughness Measurement

12 analysis parameters are provided in total, including the frequently-used Ra (Sa), Rq (Sq), Rz (Sz), parameters. Parameters conform to ISO 4287, 25178 DIN 4768

Measuring range: Ra, Rq: 0.01-500μm Measuring accuracy: ≤±10% Repeatability: ≤6%

Get in **Touch**

PHONE   **+33 9 54 03 05 43**

MAIL   **contact@phaseview.com**

SITE   **www.phaseview.com**

ADDRESS   **2 Impasse de la Noisette - Bat B3, 91
370 Verrières-Le-Buisson
France**