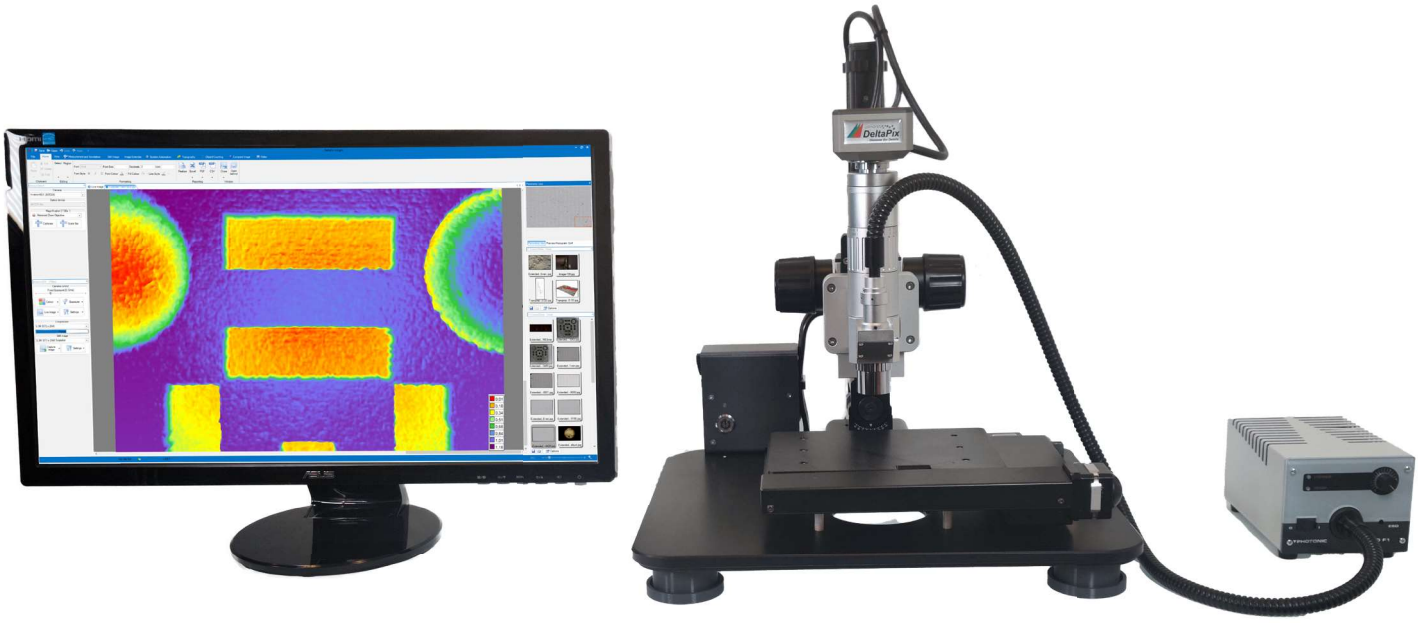
DeltaPix
- Discover the Details

# DeltaPix DPX M12000 Digital Microscope



- Super high resolution
- 3D topography / 3D measurement
- 2D measurements
- Roughness
- Super depth of field
- Auto stitching and scanning
- Flexible and modular

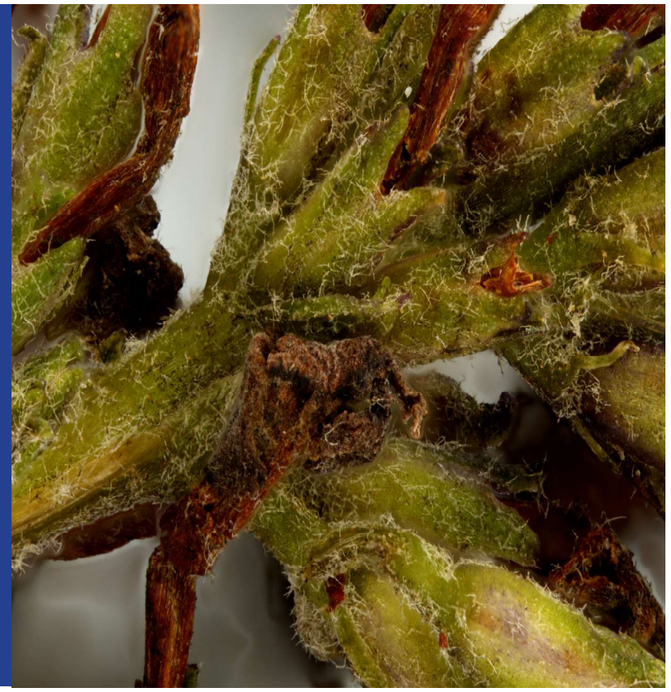
www.deltapix.dk

# High-resolution Inspection and Super Accurate Results

## Inspection/ Still images

Inspect the samples in full resolution and capture all the details for documentation with just a click of the mouse.

The images can be saved in various compressed or uncompressed formats like JPEG, JPEG2000, Tiff, and BMP

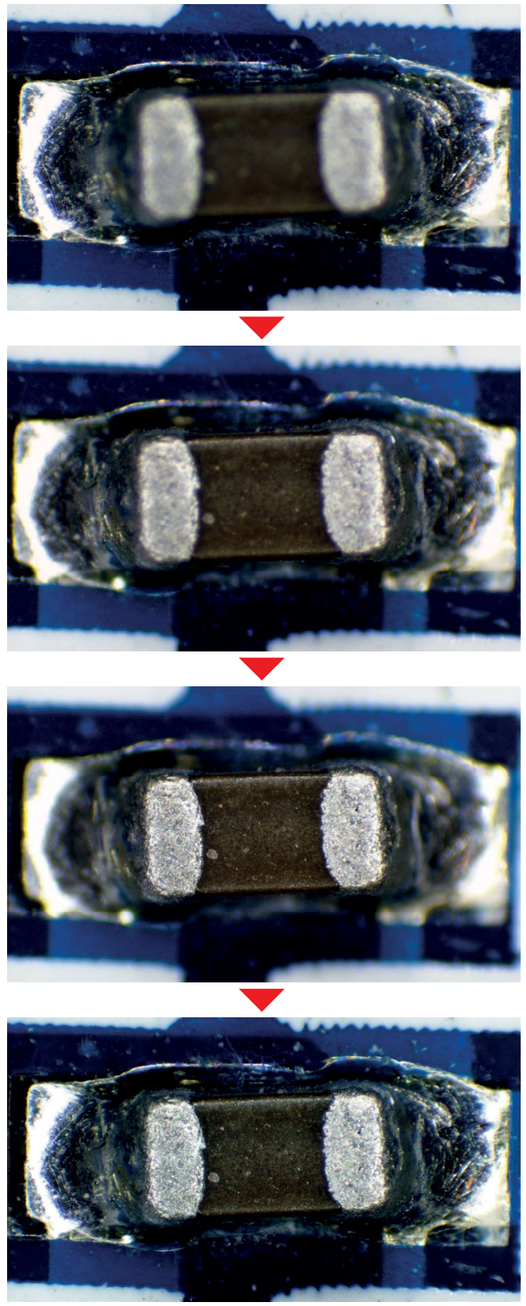



## 2D Measurements

DeltaPix microscopes offer accurate measurements on real-time video, or captured images. The software offers many powerful measuring tools including length, area, angle, diameter, and much more. In addition, the actual dimension and measurement results can be saved on the captured image or exported to Excel, CSV, or PDF files.

Export to Excel or PDF using the included templates or design a custom template.

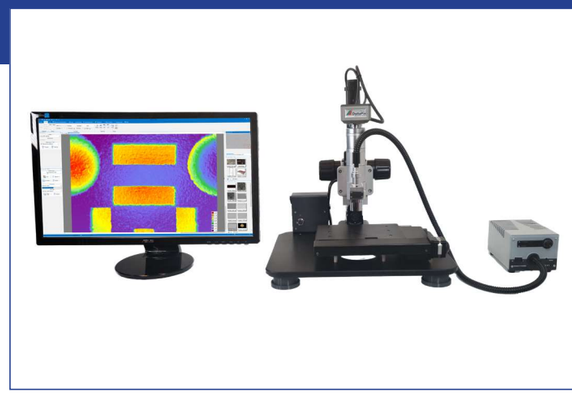
Measurements on multiple specimens can be exported to one CSV file for statistical purposes.



## Super Depth of Field

DeltaPix microscopes can produce “Super depth of field”, this extends the standard focal depth of the objective, by capturing images at different focal planes and using the state of the art algorithms. this technique also works on stereo microscopes.

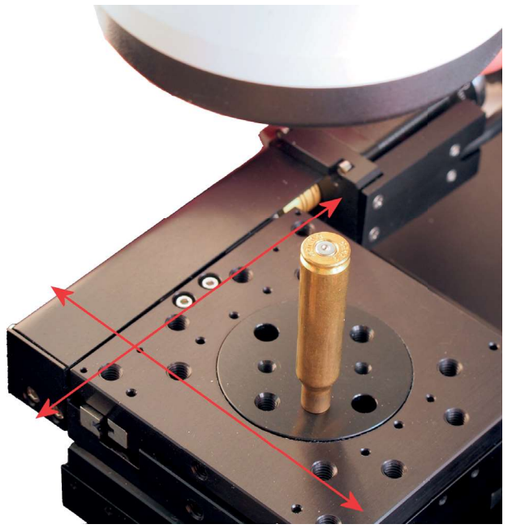
The number of images required for each extended focus capture, is automatically calculated from the depth of focus at a given. magnification.

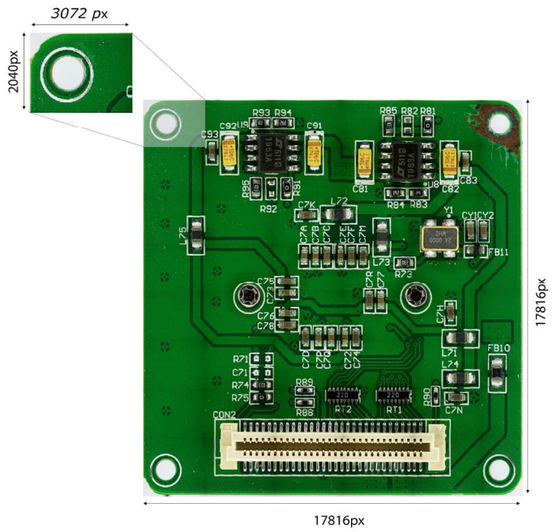


# Extended Field of View / Auto Stitching

The field of view can be extended by including a motorized XY stage.
This is done without involving the user in complicated calculations, the user just moves the stage with the joystick or keyboard to the two opposite corners for the region of interest, then the software does the rest automatically.

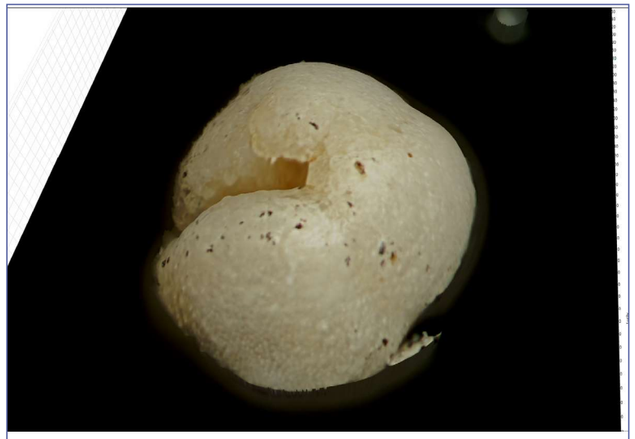
The resulting image provides a large seamless field of view with perfect microscopic details. The
automatic stitching can be combined with extended depth of field, extended image dynamics and autofocus.




# 3D Topography

Extend the visualization and measurement from 2D to 3D.



Microfossil specimen

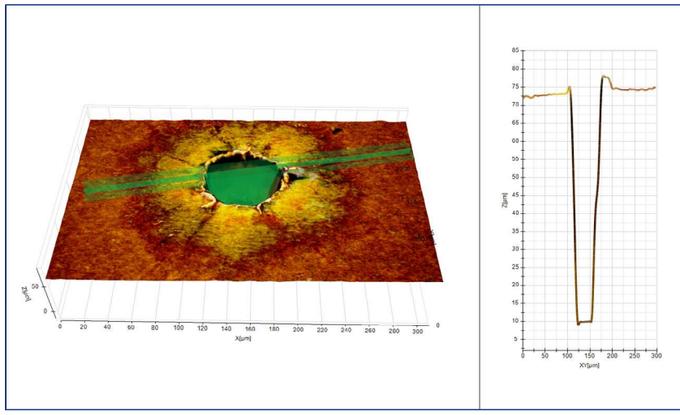
With the 3D module in „InSight“, it is possible to display a 3D model of the specimen under observation.

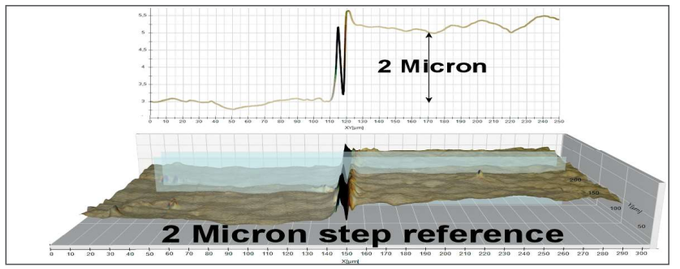
Displaying the 3D model in its true color, or pseudo color to better illustrate the height difference in the specimen againts a height scale.

# 3D Measurements

Comprehensive and intuitive 3D measurements.

The Modus system is a fully capable 3D, surface analysis, and measurement system. 2D parameters like angle, distance, and area can easily be visualized and measured in 3D. Multiple light source options, in combination with high-resolution long working distance optics allow visualization of image surfaces with ease. Traditional 3D systems like confocal and scanning microscopes can struggle with comlex surface topography, but, the DeltaPix Modus 3D systems, display all complex details in true color. The 3D capabilities are also available in the XY-scanning mode, so
detailed 3D images can be captured automatically at pre-saved XYZ-positions for later analysis.

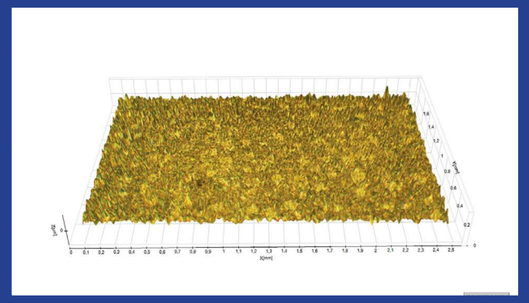


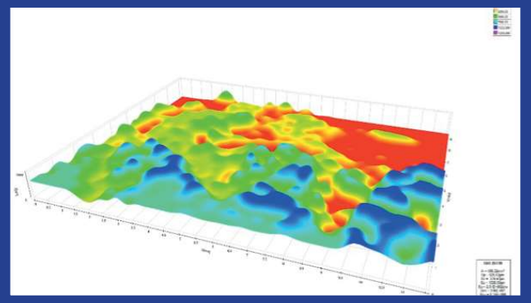


# Roughness Measurement

DeltaPix InSight offers a non-contact roughness measurement according to ISO 25178-2:2012.

The software can be applied in various applications where surface textures need to be analyzed. The implementation of surface roughness measurement is based on the data collected from topography analysis thus the need for third party add/on software is eliminated for most applications.





Measurement data shown in a panel in the lower right corner is the results of the Roughness 3D calculations. Data can also be exported to an Excel spreadsheet.

**Sq:** Root mean square height of the scale-limited surface
**Ssk:** Skewness of the scale-limited surface
**Sku:** Kurtosis of the scale-limited surface
**Sp:** Maximum peak height of the scale limited surface
**Sv:** Maximum pit height of the scale limited surface
**Sz:** Maximum height of the scale-limited surface

# New Improved Microscope Base

Now featuring a new and improved stand for DeltaPix digital microscopes to provide tilting function, an integrated controller for ease of installation, and anti-vibration feet.
Small environmental vibrations from surrounding machines, trains, transport, cooling, heating, and other sources, can often cause the specimen under observation to vibrate with several microns, which will make the image look unsharp, and make measurements unprecise, especially at high magnification.
These artifacts are dramatically reduced by the new anti-vibration feet, thus increasing the usability of the microscope in “real-life” environments.

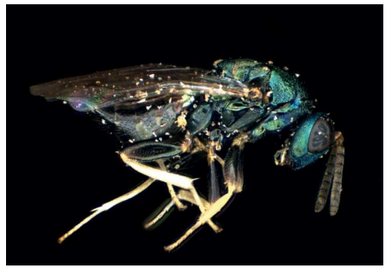


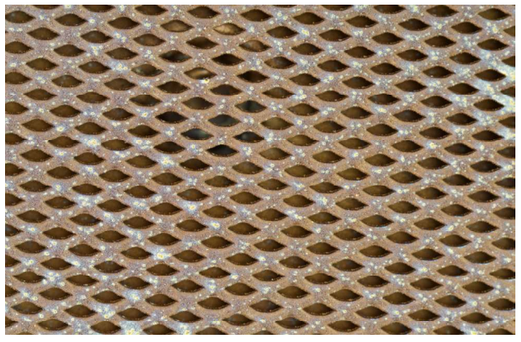
# Specifications

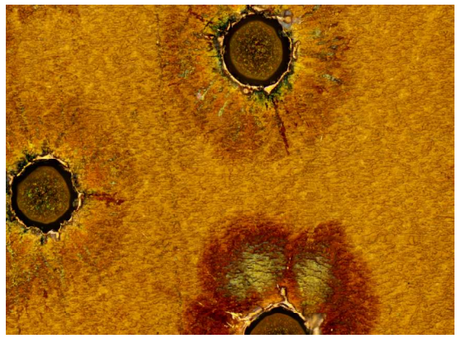
| DPX M12000 zoom Specifications | | | | | |
|---|---|---|---|---|---|
| **Camera model** | **Function** | **M12Z-0 .42** | **M12Z-1.25** | **M12Z-2.5** | **M12Z-4.16** |
| | NA range | 0.01-0.07 | 0.03-0.2 | 0.06-0.36 | 0.1-0.45 |
| | Resolution | 33.55-4.79mu | <1.5-11mu | <0.9-5.5MU | <0.7-3.4mu |
| | Focal depth | +-2750-56.12mu | 7-300mu | 2-77MU | 1.4-27mu |
| | Working Distance | 45mm | 46.2mm | 35.25MM | 14mm |
| **Invenio 6EIII** | Magnification | 29x-344x | 83 - 1560x | 166 – 3120x | 305-5740x |
| | Field of View | 21mm-1.772mm | 7.2mm-384mu | 3.6mm – 192mu | 2mm-208mu |
| **Invenio 12EIII** | Magnification | 27.7x-329.5x | 157 – 2964x | 315 – 5928x | 579-10906 |
| | Field of View | 22mm-1.85mm | 7.2mm - 384mu | 3.6mm – 192mu | 2mm-208mu |

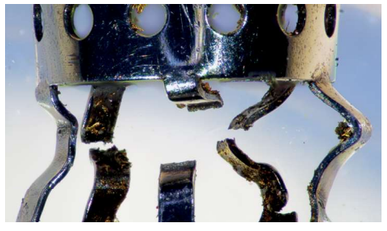
# Gallery

Various images from DeltaPix image library.









# Microscope diagram

## Camera options

Invenio
6EIII

Invenio
12EIII

## Motorized zoom options

M12ZS

## High magnification objective lenses

5X

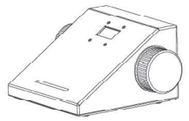
15X

25X

50X

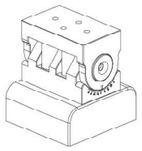
## Controllers

DPX STEP4



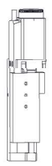
ErgoFocus

## Track and base options



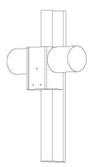
Tilt45

5012 Solid-
M-Base



Motorized
z stage

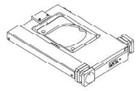
Large metal base



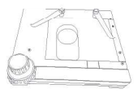
Strack/LTrack

Solid SM-Base

## XY Stages



Motorized XY
Stage 125x75
or 100 x 100



Manual XYM
Stage

## Illumination options

LED F1

light guide
1000mm

LED F1 UV

Goose Neck
two arms



Ring light
3ZC

Polarizor Set
8ZC

Ring light
8ZC

Lens WD50
8ZC

LED back light

Lens WD100
8ZC

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