

Modus M12ZS

Digital motorized microscope system

Features:

- Motorized XY and Z stages. Object size up to 250x300mm (larger size available on request)
- Scanning of large areas in high resolution for use in "Virtual microscopy".
- 3D Topography
- Automatic stitching ("mosaic", "panorama")
- Automatic extended focus and exposure can be combined with automatic stitching
- Positions can be transferred to Electron microscopes or similar type of microscopes with nano capability
- XYZ position can be controlled by Joystick mouse.
- Full measurement on screen, automatic report generation, pdf, Excel.

Specifications in standard version (other specifications available)

Dimensions without controllers:
544 x 450 x 525 mm (L x W x H)

XY Travel range: 125 x 75 mm (Optiscan)

Motorized Z travel range: 50mm

Manual Z focus range: 380mm (any size as option)

XY repeatability: <5µm

Fully motorized digital microscope system

Easy-to-use auto stitching

In many applications capturing a single image of a small part of a large object, is not informative enough. In order to extend the field of view and have everything in focus at the same time, it can be necessary to capture several images in different positions and with different focus level and combine them together, in order to get an overview, and to see all the microstructures at the same time.

The M12ZS system can do this Easily in a superior quality.

Solid mechanics

In order to keep vibrations from affecting the image quality and visible details, the system is made from extreme solid mechanics, keeping the deflection less than 1 micron.

High Power coax light

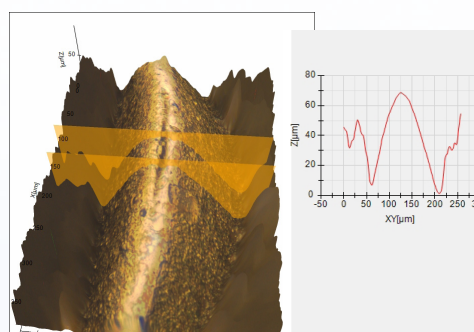
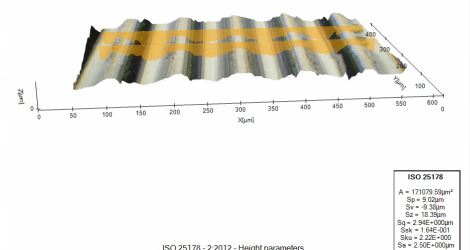
The system is supplied with a high power LED fiber light source (equals a 150W halogen source) with extra wide diameter, in order to capture shadow free images. Due to the LED technology, change of lamps is not an issue.

3D Topography/Measurement

Display the topography of the specimen under observation. Height measurements and profiles across any section of the material can be displayed and documented.

High resolution optics with zoom capability.

Captures stunning images by combining outstanding optics with a high quality camera from DeltaPix. This digital microscope, is built around a 12 times Zoom system made in Japan. As it is a mono system, the optics can be made much smaller, cost effectively and more compact, compared to a similar stereo zoom system. The optical quality is comparable or even better than with the best stereo microscopes and dedicated material microscopes.



Minimum system requirement

- Intel i5 (Quad-Core) or better
- 4 GB RAM
- 15 GB free harddisk
- USB 3.0 port
- Windows 7, 8/10, 32 bit and 64 bit
- Full HD monitor

Optics				
Version		M12Z-1.25	M12Z-2.5	M12Z-4.16
	Function			
	NA range	0.03-0.2	0.06-0.36	0.1-0.45
	Resolution	<1.5-11 μ m	<0.9-5.5 μ m	<0.7-3.4 μ m
	Focal depth	7-300 μ m	2-77 μ m	1.4-27 μ m
Invenio 6EIII	Working Distance	46.2mm	35.25mm	14mm
	Magnification* ¹	83-1560x	166-3120x	305-5740x
	Field of view* ²	7.2mm - 384 μ m	3.6mm - 192 μ m	2mm - 208 μ m
Infinity X-32	Magnification* ¹	83-4000x	166-8000x	305-14700x
	Field of view* ²	7.2mm - 150 μ m	3.6mm - 75 μ m	3.6mm - 41 μ m
Invenio 5SIII	Magnification* ¹	104-1940x	208-3880x	382-7140x
	Field of view* ²	5.7mm - 306 μ m	2.8mm - 153 μ m	1.5mm - 83 μ m
	Motorized Fine Focus range		50mm	
Focus-stage				
Version		STrack	LTrack	Alu Track
	Useable travel range	150mm	260mm	-
	Height	260	460mm	550
XY-stage				
Version		DPX XYS-25 /SF	ES-111	DPX XYS-100/150
	Travel range x [mm]	25	125	100/150
	Travel range y [mm]	25	75	100/150
	Max speed [mm/s]	12/2.5	8	5
	Min step size [μ m]	0.6/0.125	0.2	0.31
	Repeatable precision [μ m]	10/1	5	2
	Load capacity, vertical [kg]	30	5	8
	Dimension [mm]	167x167	340x230	210/324x210/324
Base plates				
Version		S-Base	L-base Z	
	Size [mm]		450x544	
	Adaption for Motorized stages	no	Yes	
DPX-STEP4 Controller				
Weight	Size	Output number	Power inlet	Control
500g	200x150x30mm	4x Stepper output	12V / 4A	Power on/off

*1: Maximum magnification and minimum FOV is calculated on a 24" monitor with 1600x1200 pixels, at 100% zoom at maximum still image camera resolution (one pixel on the sensor equals one pixel on the monitor, no "digital zoom interpolation"). FOV is diagonal.