

Digital Microscope U50s

Latest 4K60 Technology!

4K
60 FPS



Configurable, High-Resolution Optical Inspection

4K Digital Microscope with 60fps Video Technology Powered by INSPECTIS[©]

 **INSPECTIS**

Quality of Inspection

Ultra HD 60fps video

MORE NATURAL IMAGES

The U50s creates vivid 4K video at 60 fps and low latency. First class motorised zoom optics producing 210 mm to 4.0 mm field of view equaling to 2.9x to 151x on-screen magnification. Configurable to 1730x on-screen magnification equal to 0.35mm field of view with +56 diopter lens.

Video's high refresh rate maintains image coherence and stability, reduces motion blur, and provides smooth and dynamic images of especially fast-moving objects.



Breakthrough Technology

In addition to its high frame rate, U50s sensor provides higher sensitivity and higher dynamic range than previous 4K cameras. Industry-leading 4K60 signal processing with exceptional flicker and flare reduction for best image quality.

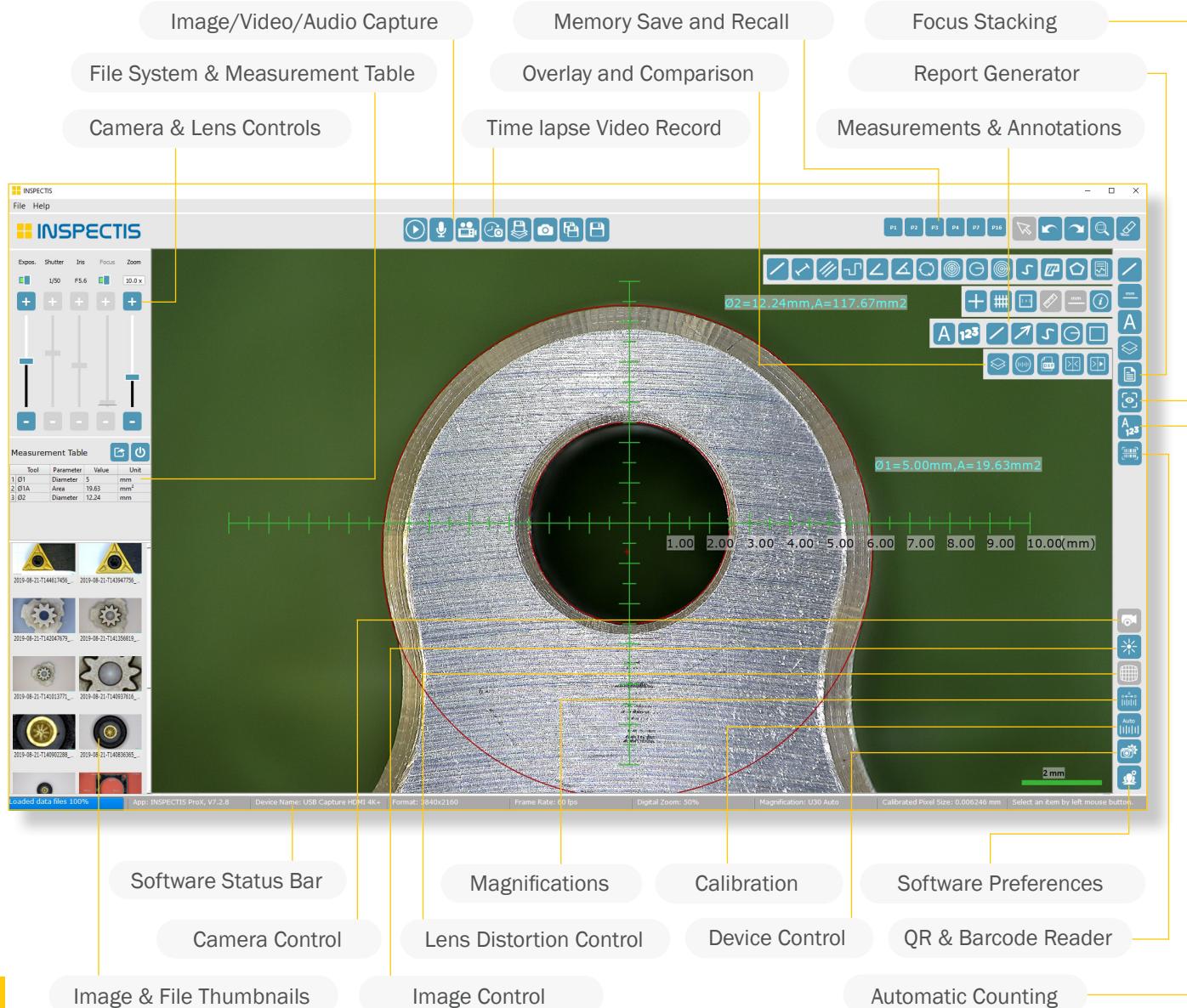
Industrial build quality inside and out. Designed and manufactured according to ISO 9001 and ISO 13485 standards.

“Winner of the 2025 New Product Introduction (NPI) Award”

Software

POWERED BY INSPECTIS®

Powerful yet easy-to-use software with streamlined workflow and pre-calibrated optics for live video streaming, camera control, capture, analysis, measurement and reporting.



Intuitive & Efficient

Icon based graphical user interface and powerful video processing engine. Advanced tools for zoom tracking, geometrical measurements, image overlays, comparisons, time laps video recording, depth of focus extender, automatic object detection and counting, DXF editor, drawings, annotations and reporting.

"The Last Microscope You'll Ever Need!"

SPECIFICATIONS

Digital Camera System:

Parameter	Value
Video Output	4K 2160p, 60 frames per second, 8.4Mp
Optical System	25:1 motorised zoom with auto-focus and auto-brightness intensity control, F1.6 - 4.8
Digital Zoom	2x digital zoom with 3D noise reduction
Magnification (on 28" monitor)	2.9x to 151x with standard lens. Up to 1730x with +56 diopter lens
Field of View	210mm at 1x zoom, 4mm at 50x zoom, 0.35mm at 50x with +56 diopter lens
Working Distance	225mm with standard lens. 18mm with +56 diopter lens
I/O Ports	HDMI2.0 video output, 5P MiniDin power input, 8P MiniDin for communication
On-board Controls	Zoom, Auto-brightness level, Manual/Auto Focus, White Balance
External Remote Controls	Zoom, Iris, Manual/Auto Brightness, Manual/Auto Focus, White Balance, Clarity filter, Contrast, Picture Quality Mode, Display Text, Crosshairs overlay, Image Rotate, Image Freeze, Memory Save/Recall (2 pcs), Laser-pointer, Foot-switch.
Illumination	White LED Ringlight, Single-spot and Double-spot LED with gooseneck, Bright-field white back light
Storage / Operating Environment	-20° - +60°C, 20 - 95% RH, non-condensing / -5° - +40°C, 20 - 95% RH, non-condensing
Size, Weight	Ø 86.5 x 160mm exclusive cable. 0.88 kg. excluding cable and stand

Ordering numbers Inspection systems packages:

Item name	Order No.
Inspectis U50s, Ultra HD 60fps Modular Digital Microscope, x50 Zoom	HD-116
Inspectis U50s Advanced Inspection 4K60 System with INSPECTIS© Pro Utility and Metrology Software	HD-116-KIT ADV
Inspectis U50s Long Working Distance 4K60 System, with LWD Stand, Advanced Controller and Ring light	HD-116-KIT-LWD
Inspectis U50s Inspection System 4K60 with precision X-Stage, Advanced Controller and Ring light	HD-116-KIT-XM
Inspectis U50s Inspection System 4K60 CAP with Stand, RingLight, Image/Video Capture and monitor	HD-116-KIT-CAP
Inspectis U50s Inspection System 4K60 SOFT, with Stand, RingLight, and INSPECTIS© Basics software	HD-116-KIT-SOFT
Upgrade with 3m Extended Cable	* -EC
Upgrade with ESD-protected Housing	* -E
Upgrade with LP	* -L
Upgrade with Hermetic Sealed Housing	* -S
Upgrade with Advanced Iris Controlled Auto Brightness	* -A



Reseller



AUTOMATIC TEST EQUIPMENT

V3. 2026 Specifications are subject to change without prior notice.

ATEcare Service GmbH & Co. GmbH

Neufeldstr. 14

D-85232 Bergkirchen

+49 8131 318 575-120

info@atecare.com

Kontakt Schweiz:

ATEcare Alexander Hoertner

Friedhofweg 5

CH-9434 Au SG

+41 71 740 10 90

info@atecare.net



Quality of Inspection

Inspectis Optical Systems
Stockholm, Sweden

www.inspect-is.com
info@inspect-is.com