EVOCAM AURA

Vision ENGINEERING

4K ULTRA HD DIGITAL MICROSCOPE



QUALITY FOCUSED

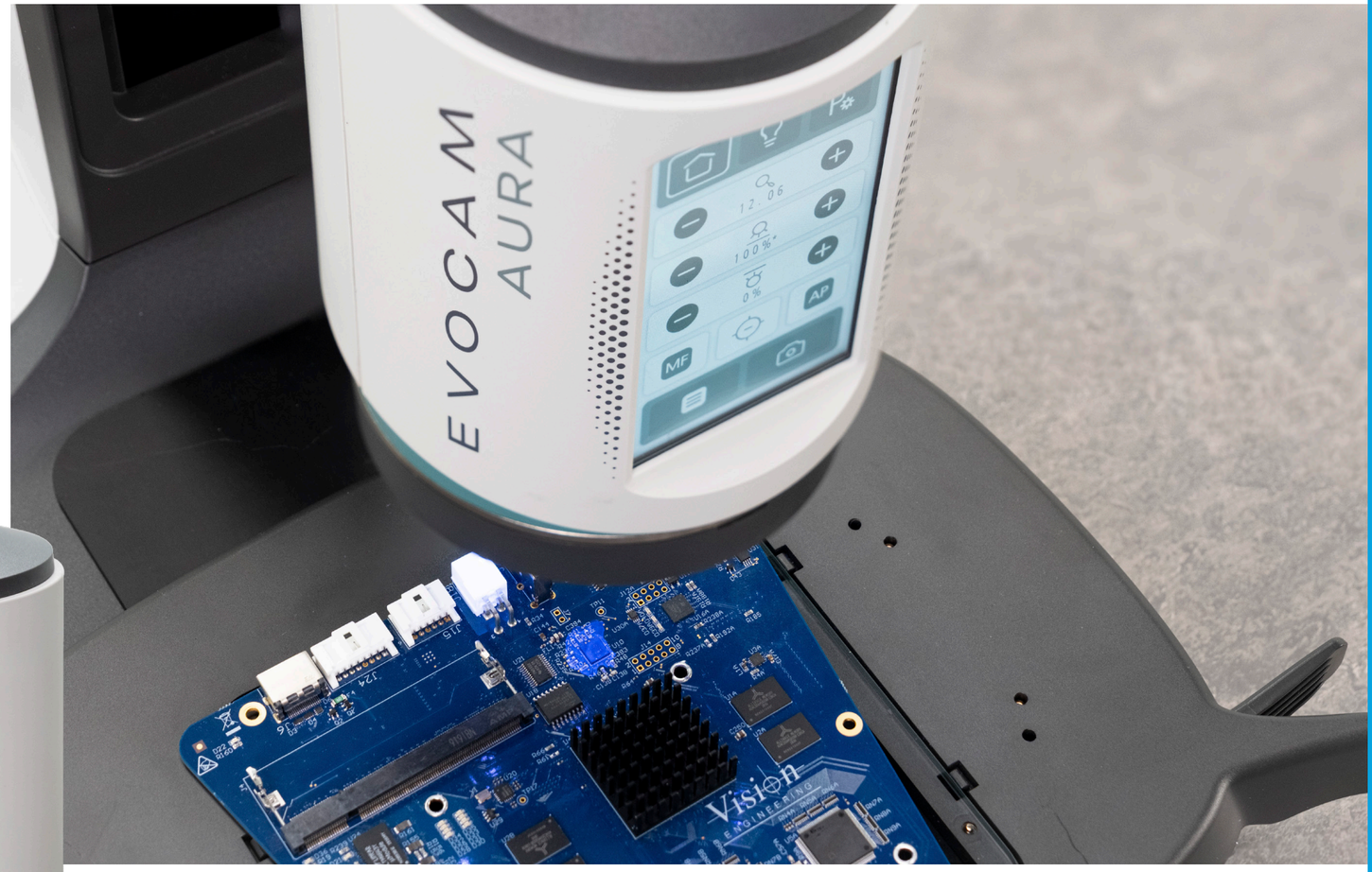
INSPECT. MEASURE. REPORT. ONE SYSTEM.

EVO Cam AURA combines 4K image quality with a full set of integrated tools for accurate, repeatable and efficient workflows.

Focus stacking, image comparison, customisable presets, annotations and measurement tools are all built in, keeping results consistent across operators, shifts and sites.

Three models are available to suit different working environments. Secure variants are also available for restricted areas where wireless connectivity or internal storage is not permitted.





WHAT AURA DELIVERS:

FROM LIVE IMAGE TO DOCUMENTED RESULT, EVERY STEP OF THE INSPECTION PROCESS IS HANDLED IN ONE SYSTEM.

01

See details clearly

Improve product quality and accurate reporting with high-quality, high-resolution images. Reveal the detail, the smallest cracks or scratches, cell boundaries, contamination, or unwanted air bubbles and inclusions. Whatever the subject - highly polished metal, low-contrast plastic, black plastic moulding, or anodised parts - AURA shows the finest detail.

02

Confidence in quality procedures

Lock in quality with confidence. Keep your results consistent, accurate and repeatable, and at every step of your quality procedure. Auto-features detect critical settings and lock down variables, removing guesswork and delivering confidence in quality control.

03

Ease and efficiency of use

Do more, faster, with fewer errors. Efficient, user-configurable set-ups and integrated productivity tools increase production yield. A range of assisted inspection features means more can be completed on one system, cutting set-up and transition times.

04

Fit the system to your environment

Different inspection environments have different demands. Configure your system with a choice of control interfaces, lens options, lighting, stands and connectivity to suit the task, the bench layout and the workstation.

For more information, visit visioneng.com

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BUILT FOR YOUR INSPECTION ENVIRONMENT

EVO Cam AURA is a configurable digital microscope, built around your inspection task. Choose the model, control interface, lighting and set-up that suit your task, environment and workflow.

EVO Cam AURA 4K Touch

4K imaging with touchscreen control for detailed inspection and configurable workflows.

EVO Cam AURA 4K

4K imaging with front button keypad control for detailed inspection where physical controls are preferred.

EVO Cam AURA HD

1080p imaging with front button keypad control for responsive live inspection, assembly and rework tasks.



EVO Cam AURA 4K Touch on Ergo stand



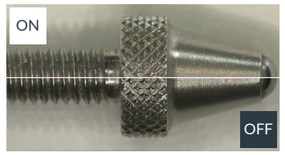
EVO Cam AURA 4K on the Multi Axis stand



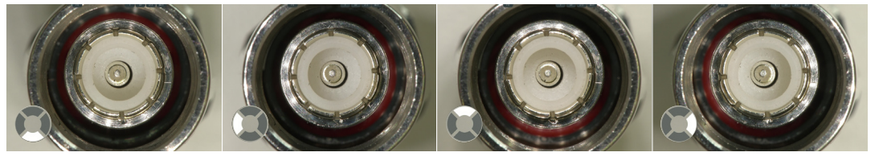
EVO Cam AURA HD on Verso arm

Illumination

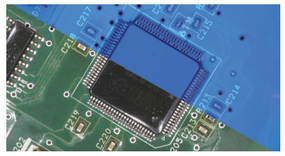
Choose the lighting to optimise the view of the sample.



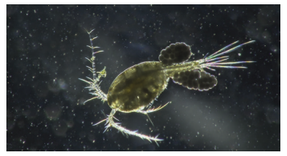
Polarising



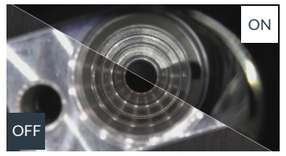
Quadrant-controlled



White and UV



Contrast-enhancing base



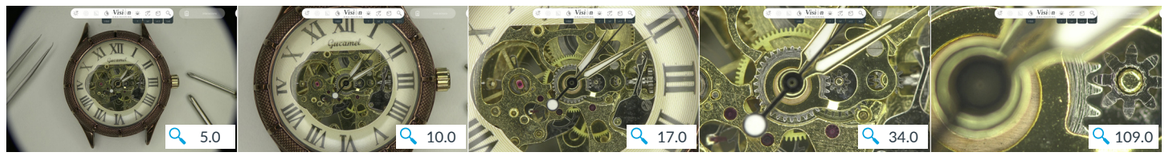
Episcopic illuminator



Sub-stage illumination

Objectives

Choose the objective that best suits the magnification task.



Secure Variants

Secure versions of all three models are available for restricted environments where wireless connectivity, Bluetooth or internal storage is not permitted.

For more information, visit visioneng.com



ONE INTERFACE. EVERY CONTROL.

AURA software, developed by Vision Engineering, built around the inspection process from the ground up. Every control is accessible from one screen. Fully integrated.

Intuitive control

Navigate by mouse, touch panel or keypad. The icon-led interface is fast to learn and easy to use, for first-time set-up or handover to a new operator.

Everything in one place

Zoom, focus, lighting, image control, capture, measurement and analysis options are all controlled from within the software. Operators stay in the workflow from live image to documented result.

At a glance

The status bar shows the current system state across the top of the interface. Objective, lighting, zoom and active settings are visible without opening a menu. The setup can be confirmed before inspection starts.

Consistent across every system

Presets save known settings for recurring tasks and can be shared across multiple systems. The same inspection conditions can be replicated wherever AURA is deployed. Supervisor Mode fixes critical parameters so settings stay locked in.

Save and share

Captured images include annotations, measurements, metadata and time stamps. Save to internal storage, USB or network drive. Share results with stakeholders without moving the system.

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INTEGRATED TOOLS FOR INSPECTION AND DOCUMENTATION

EVO Cam AURA brings together intelligent settings, inspection tools and system components to keep inspection controlled and consistently documented.

See details clearly

4K high-resolution images

Show fine detail. The sensitive sensor captures a wide range of colours and brightness levels.

Optical excellence

Bespoke optics and high-quality optical zoom to move from overview to close detail within the same workflow.

Autofocus

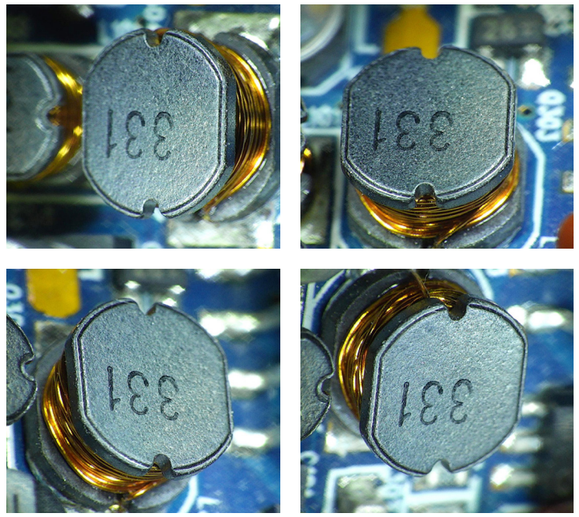
Bring the sample into focus quickly, with less manual adjustment.

Focus stacking

Capture a sharper image across uneven samples or parts with depth.

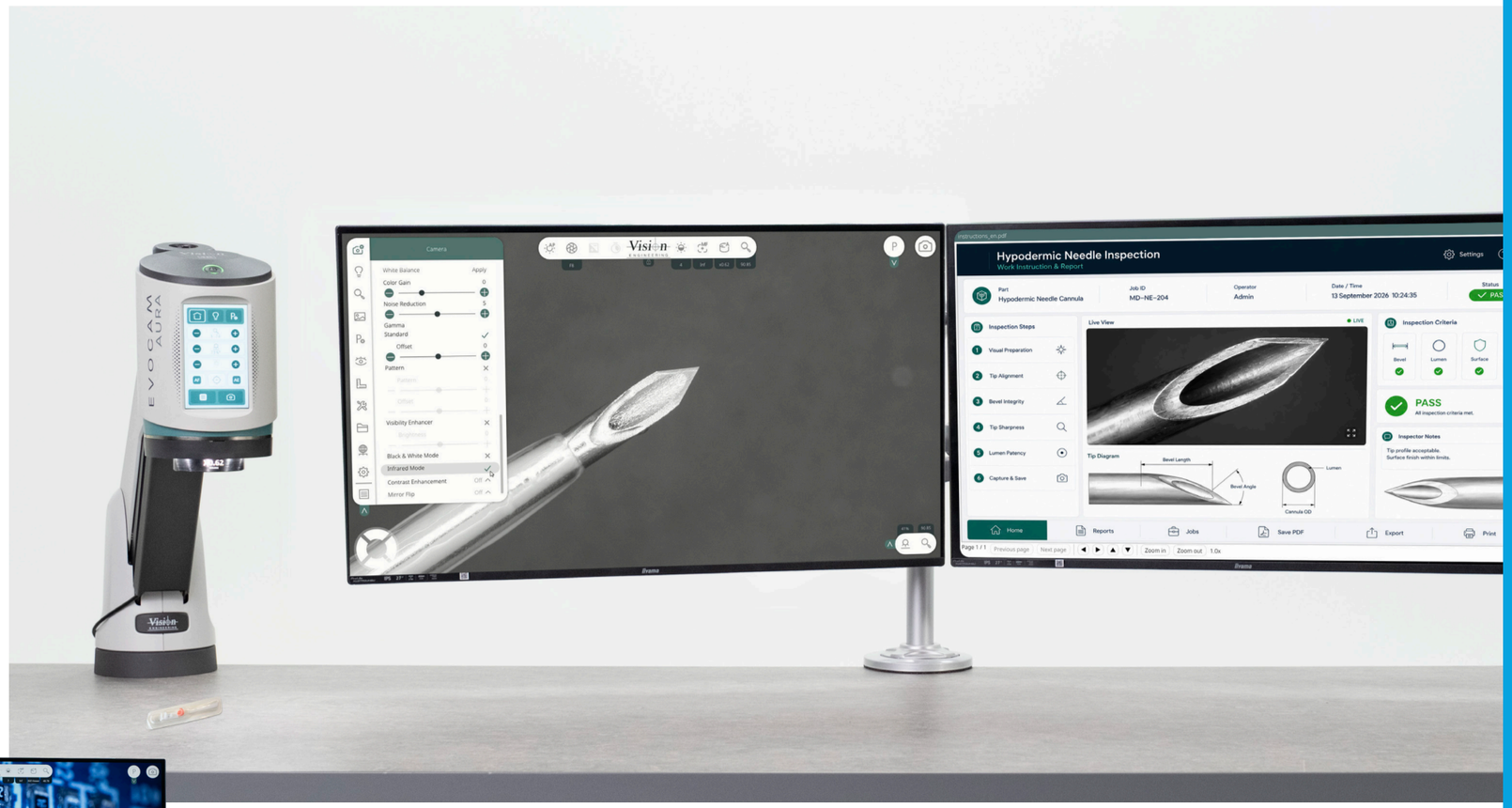
Image tuning tools

Use integrated settings to improve visibility on challenging samples.



The oblique and direct 360° viewer rotates the view around a point of interest.

For more information, visit visioneng.com





Confidence in quality procedures

Intelligent auto-recognition

Settings update automatically so magnification and measurements are always displayed correctly.

Intelligent lighting

When the ringlight is changed, settings are automatically recalled to match the previous set-up.

Personalise supervisor settings

Open up more features without risk of compromising inspection quality or accuracy of results.

Metadata image comparison

Automatically match settings to the metadata of a golden sample image.

Presets

Save known combinations of settings for recurring inspection tasks.

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INTEGRATED TOOLS FOR INSPECTION AND DOCUMENTATION

EVO Cam AURA brings together intelligent settings, inspection tools and system components to keep inspection controlled and consistently documented.

Productivity tools

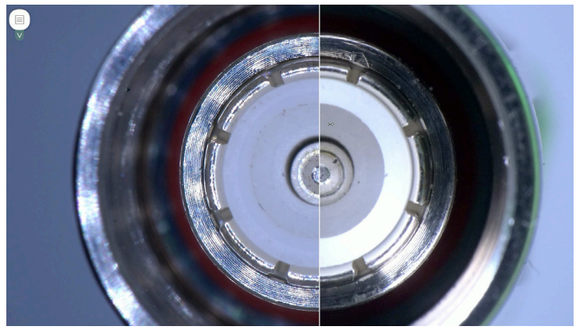
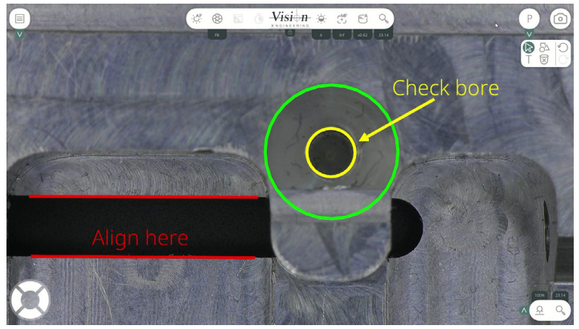


Image comparison

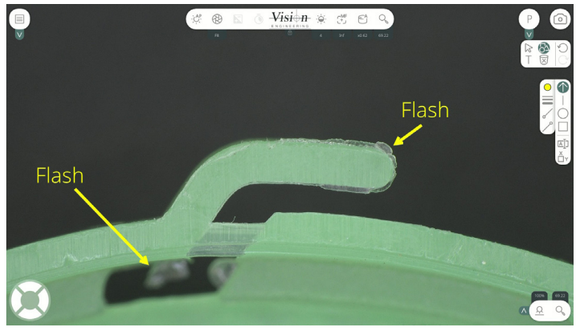
Pulse, curtain, and second screen comparison options for easy comparison versus golden samples.



Customisable overlays

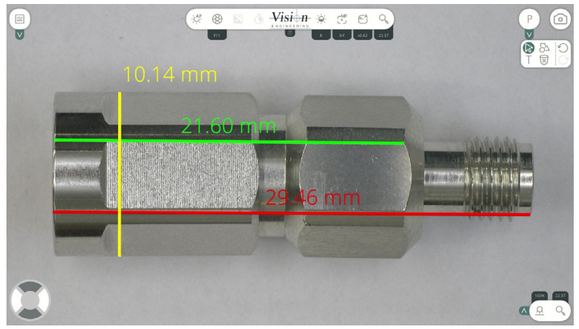
Create bespoke go/no-go gauges specific to each inspection that can also be incorporated into presets.

Reporting tools



Annotation

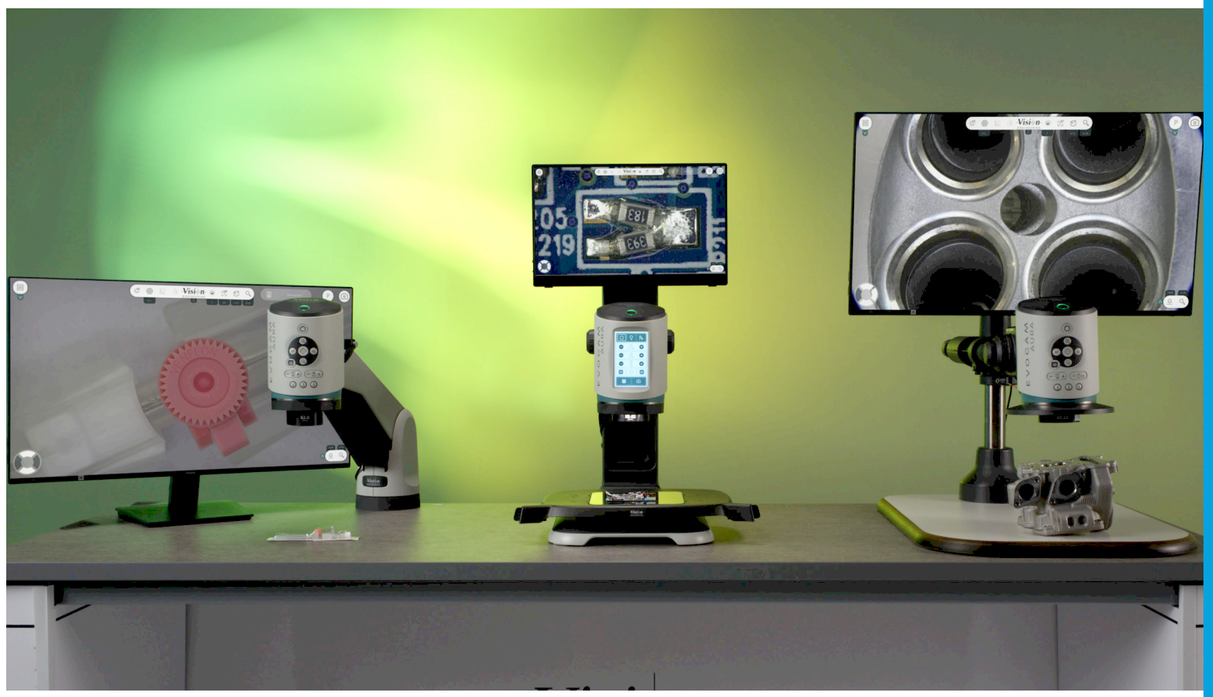
Annotate images to clearly identify faults and features for reporting and communication.



Measurement

Calibrated measurement of defined dimensions easily within the view.

Multiple calibrations can be quickly reloaded at a range of magnifications.



Integrate into your systems

All-in-one inspection

A complete inspection solution. No PC required.

Display and connection options

Connect to compatible monitors and networks, with secure variants available for restricted environments.

Streaming

Provide supervisor oversight without interrupting productivity and collaborate locally or to remote systems.

Connectivity

Network connectivity through Wi-Fi or LAN to fully integrate.

Name systems to identify workstations, configure saving formats to ensure traceability.





Wi-Fi



Ethernet Network



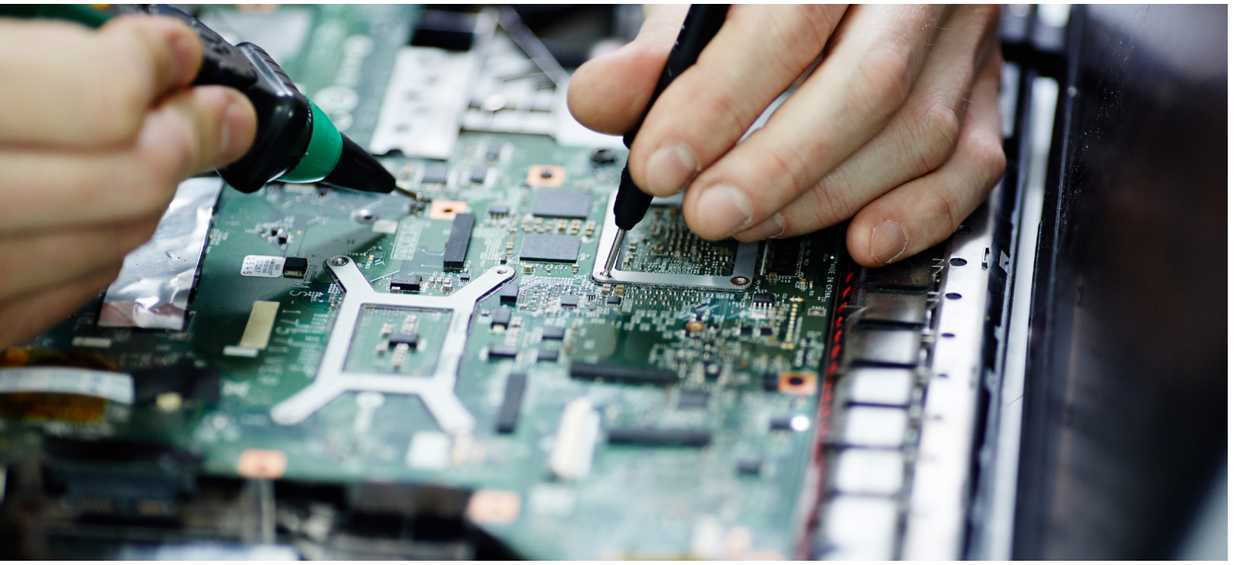
Bluetooth



USB Storage

For more information, visit visioneng.com

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DIFFERENT APPLICATIONS. DIFFERENT PRIORITIES.

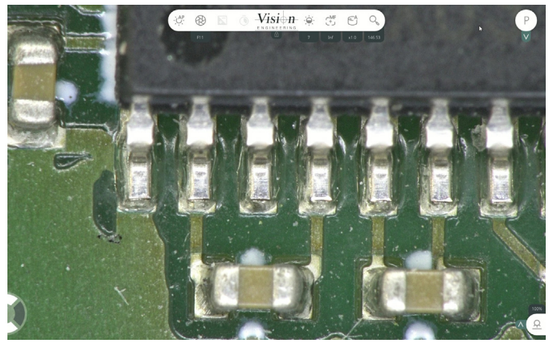
EVO Cam AURA is used across a broad range of production, quality control and laboratory environments. A choice of models, control interfaces, lenses, lighting options and accessories means the system can be configured to suit the task, the environment and the way the team works.

Electronics

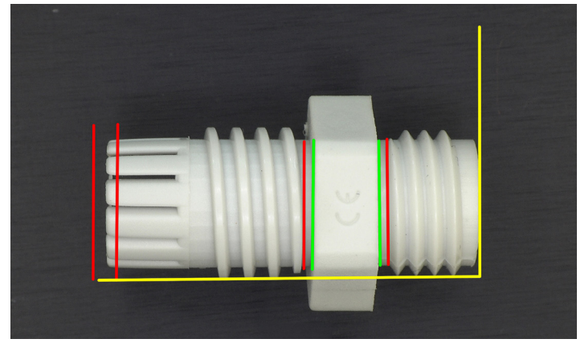
Where component density makes every joint count

As component size decreases and board density increases, image resolution can become a limiting factor in confident rework and inspection decisions. 4K imaging resolves solder joints, component spacing and pad geometry at the detail level that SMT inspection demands. The large optical zoom covers both board-level overview and close inspection of 0201 components without changing lenses.

Focus stacking captures depth across uneven PCB assemblies in a single image. Annotated images with timestamps support verification records and rework documentation on the system.







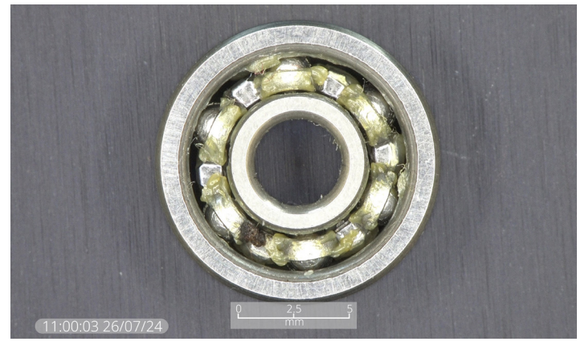
Automotive and precision engineering

Where high-mix lines need fast changeover

Inspection bottlenecks on high-mix lines often come down to set-up time, not inspection time. Customisable presets reload known image settings instantly between parts or processes, reducing changeover time across different component types. 4K imaging supports edge condition checks, coating inspection and detailed failure analysis. Go/no-go overlays provide quick checks of critical features.

OVERLAYS OFFER A REFERENCE CHECK ON THE LIVE IMAGE





Aerospace and defence

Where traceability is non-negotiable

When a component fails an audit, inadequate inspection records are as serious as the defect itself. Surface condition checks, defect review and dimensional inspection of machined and composite components need documented results that meet audit requirements.

Images saved with metadata and timestamps create detailed inspection records on the system. Network connectivity allows saving direct to a shared network for information security. The secure variant removes connectivity for facilities with strict data handling requirements.

KEY DATA CAN BE SAVED DIRECTLY ONTO CAPTURED IMAGES

DIFFERENT APPLICATIONS. DIFFERENT PRIORITIES.



Medical device manufacturing

Where documentation is part of the product

In regulated manufacturing, inspection records are as important as the inspection itself. Component verification, cleanliness inspection and assembly checks on catheters, stents and implantable components must be consistent, accurate and repeatable. Save traceable records with embedded metadata direct to network.



Research and laboratory

Where collaboration adds value

Consistent results between sessions and operators matter when analysing image data. Save and share image enhancement controls to keep results consistent between sites.

4K images capture detailed sample views, with scale bar, timestamp and other information needed for collaboration.

Integrated connectivity supports live streaming between locations, so teams can discuss results in real time.

For more information, visit visioneng.com

"IF YOU LOOK AT SOMETHING UNDER AN ANALOGUE MICROSCOPE AND THEN LOOK AT IT UNDER EVO CAM, THEY ARE TWO DIFFERENT WORLDS. THIS INVESTMENT AND APPROACH HAS SAVED TIME AND MONEY."

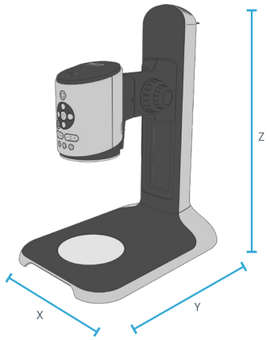
Product Engineering Manager,
Precision Manufacturer



TECHNICAL SPECIFICATION

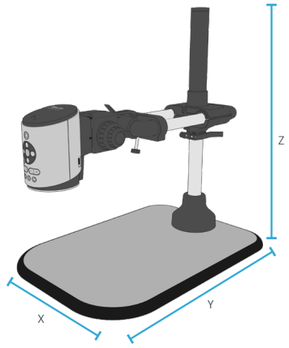
Features

Focus	Auto, Manual, Selectable spot
Exposure	Auto, Shutter priority, Aperture priority, Manual, Selectable spot
Zoom	Zoom, Set zoom limits, Zoom to
Image control	Auto monitor size detection, Auto lens detection, Focus stacking, Contrast enhancement, Gamma control, Visibility enhancer, Infra-red, Black & white, White balance
Process control	10 Configurable presets, Supervisor mode, Customisable system name, Time stamp, Scale bar, Image info, PDF Viewer
Image comparison	Curtain, Pulse, 2nd Screen, Source image matching
Annotation	Text, Circle, Ellipse, Square, Rectangle, Line, Arrow, Auto label
Measurement	Digital calliper, Circle, Ellipse, Square, Rectangle, Line, Arrow, Multiple calibration points
Connectivity	Hotspot, WiFi, LAN*, USB3*, Network streaming, Cloud streaming. *- accessory required
File format	PNG, JPEG, PDF
Lighting control	Auto lighting detection, Level, Quadrant selection
Languages	English, Français, Deutsch, Español, Italiano, Português, 中文, 日本語, 한국어



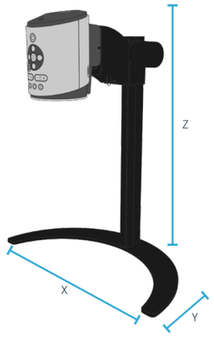
Ergo Stand

X: 280 mm Y: 415 mm Z: 512 mm



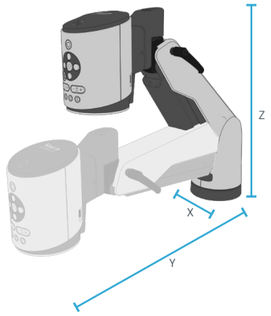
Multi-Axis Stand

X: 450 mm Y: 686 mm Z: 665 mm



Crescent Stand

X: 500 mm Y: 327 mm Z:575 mm



Verso Stand

X: 139 mm Y: 565 mm max Z: 454 mm

For more information, visit visioneng.com

Camera Specifications

	4k Touch	4k Button	HD Button
Sensor type	CMOS		CMOS
Sensor size	1/2.5"		1/2.8"
Output resolution	4K (3840 x 2160)		FHD (1920 x 1080)
Frame Rate	30 fps		60 fps
Aspect Ratio	16:9		16:9
Optical Zoom	20x		30x
Digital Zoom	12x		12x

Physical Specifications

	4k Touch	4k Button	HD Button
Dimensions	12.5 x 17.3 x 14.5 cm		
Weight	1.41 Kg	1.45 Kg	1.34 Kg
HDMI Ports	2		
USB-A Ports	3		
USB-B Ports	1		
ULM Ports	2		
IP Rating	IP20		
Input Voltage	+24V		

Optical Specifications

4K Touch & 4K Button					
	At Minimum Zoom		**At Maximum Zoom**		
Objective Lens	**Magnification**	**Horizontal FOV**	**Magnification**	**Horizontal FOV**	**Working Distance**
×0.45	2.07 ×	272 mm	41.38 ×	14 mm	161.8 mm
×0.62	2.85 ×	195 mm	57.02 ×	10.5 mm	108.3 mm
×1.0	4.6 ×	95 mm	91.96 ×	6.5 mm	80.6 mm
×1.5	6.9 ×	47 mm	137.94 ×	4.3 mm	42.5 mm
×2.0	9.2 ×	39 mm	183.92 ×	3.2 mm	29.4 mm
Oblique & Direct Viewer	4.6 ×	45 mm	91.96 ×	6.9 mm	32 mm

Optical Specifications

HD Button					
	At Minimum Zoom		**At Maximum Zoom**		
Objective Lens	**Magnification**	**Horizontal FOV**	**Magnification**	**Horizontal FOV**	**Working Distance**
×0.45	2.47 ×	232 mm	74.2 ×	7.8 mm	161.8 mm
×0.62	3.41 ×	167 mm	102.24 ×	5.7 mm	108.3 mm
×1.0	5.5 ×	86 mm	164.9 ×	4.6 mm	80.6 mm
×1.5	8.24 ×	44 mm	247.35 ×	2.4 mm	42.5 mm
×2.0	10.99 ×	36 mm	329.8 ×	1.8 mm	29.4 mm
Oblique & Direct Viewer	5.5 ×	42 mm	164.9 ×	3.6 mm	32 mm

* Based on a 27"-inch monitor

Vision ENGINEERING

Inspection and metrology solutions across industry, science and research

From ergonomic optical magnification to advanced digital microscopy and non-contact measurement systems, Vision Engineering supports inspection, analysis and dimensional verification across a wide range of applications.



Ergonomic stereo microscopy

Mantis and Lynx EVO provide comfortable optical inspection with a large field of view and natural hand-eye coordination. Designed to support detailed inspection tasks while reducing operator strain.



Digital microscopy

ProteQ VISO and the EVO Cam Series represent the latest developments in digital microscopy. Fully digital systems support inspection, analysis, image capture and reporting for documentation and collaboration.



Metrology

Vision Engineering offers a range of vision measurement systems for non-contact dimensional inspection and verification in production and quality control environments.

For more information and sales support, please contact your Vision Engineering branch, local authorised distributor, or visit our website: visioneng.com

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Vision ENGINEERING | EVOCAM AURA

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Errors and omissions excepted.

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FM 557119

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