



ASH

D I G I T A L I N S P E C T I O N & M E A S U R E M E N T S O L U T I O N S



F U L L P R O D U C T B R O C H U R E

2 0 2 1



OMNI 3

DIGITAL MICROSCOPE
AND MEASUREMENT SYSTEM





OMNI 3

DIGITAL MICROSCOPE AND MEASUREMENT SYSTEM

See what you need to see.

Leverage advanced technology to move to hyper speed, super-precision, inspection. Omni 3 has been engineered to deliver one of the most advanced and intuitive digital microscope experiences.

Powerful, embedded software can process complex imaging tasks without a PC. Custom designed to deliver maximum power.

OMNI 3

Build your unique Omni solution.

Tailor the Omni 3 by choosing the apps that meet your specific requirements.

Our apps range from advanced measurement tools to help meet critical manufacturing tolerances to comparison tools ensuring the highest production quality.

Evaluate the apps free of charge to determine which best meet your needs with our 30 free trial click of each app.

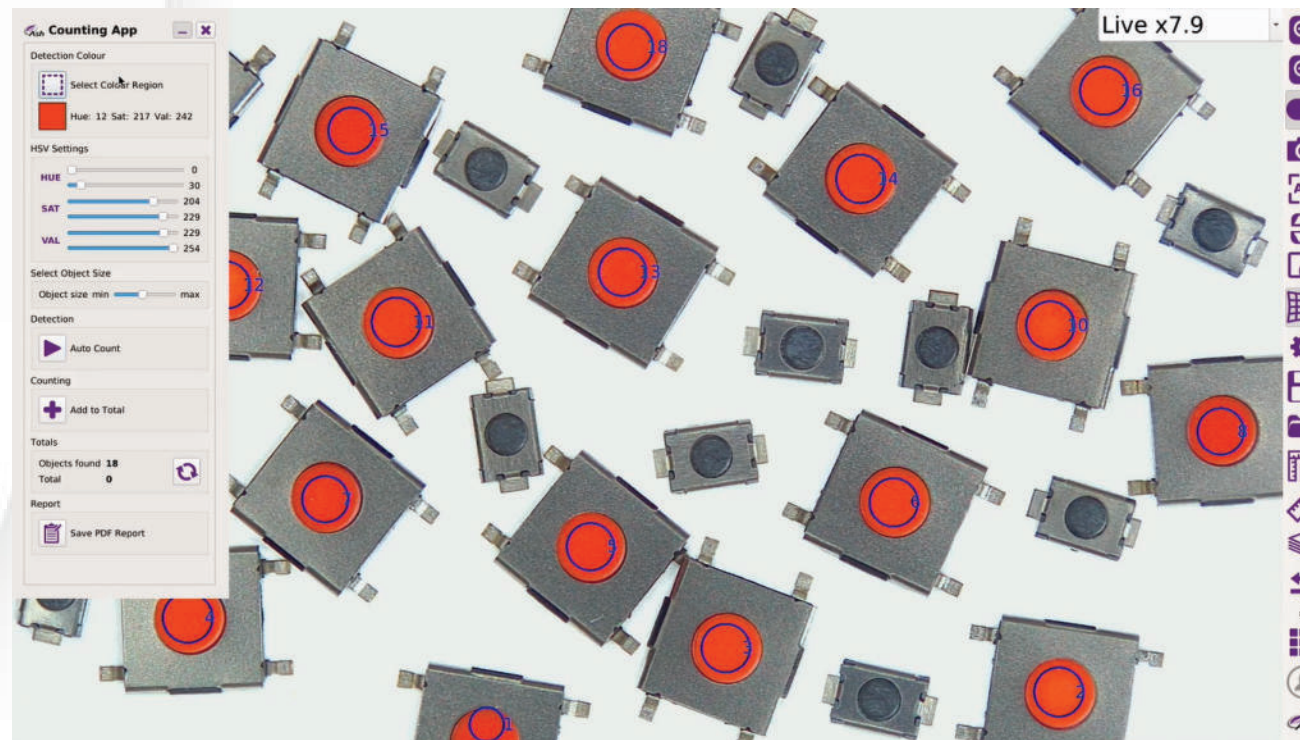


Colour Analysis App

Advanced algorithms automatically calculate the colour value of any sample.

Identify contaminants or foreign objects within your sample. Eliminate human error and improve yield by up to 50%.

Reports can be generated for easy documentation and traceability.

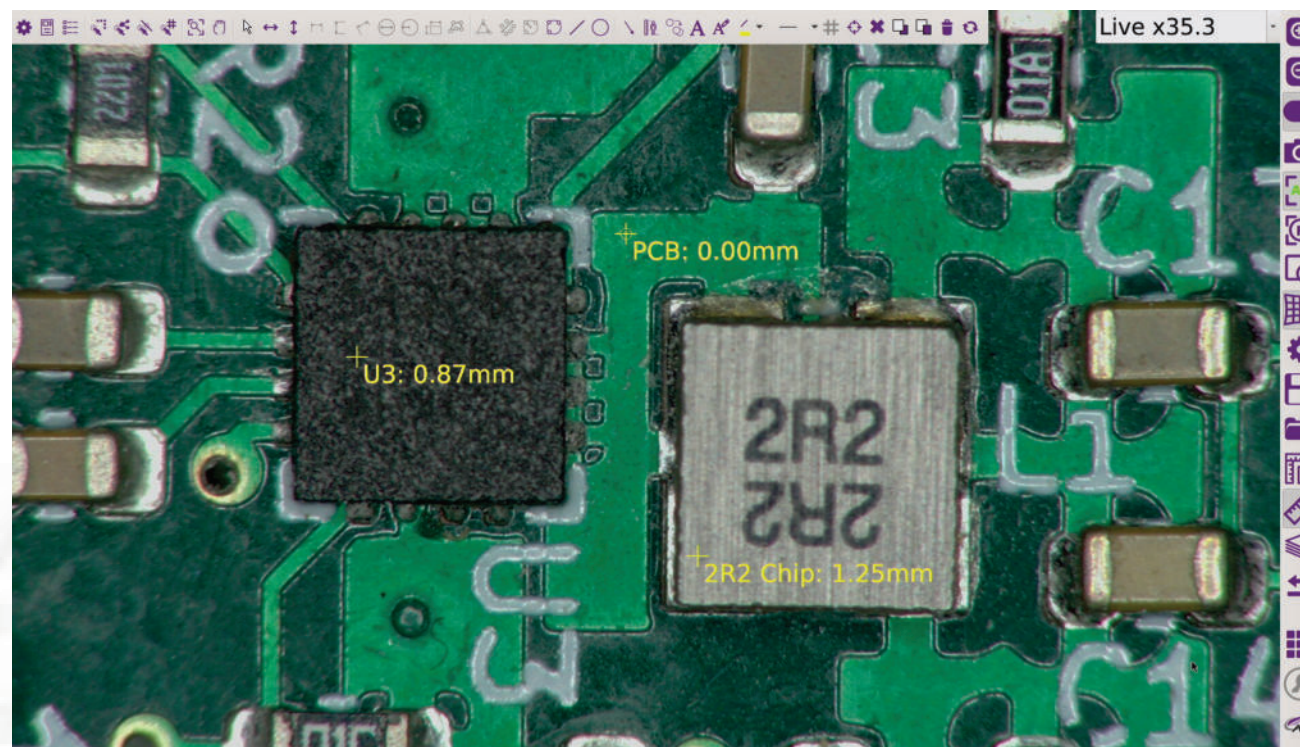


Object Counting App

Automatically identify and count the number of objects within your region of interest.

Increase efficiency by 70% whilst eliminating human error.

Significantly reduce the time spent manually counting parts while reducing costly overheads. Report generation is quick and simple for easy documentation and traceability.



Z Height Measurement App

Measure in 3D on the new Omni 3.

Now you can measure in the Z axis, in addition to the X and Y axes, bringing the Omni 3 capability to a whole new dimension.

Rapidly inspect your parts up to five times quicker when compared to outdated manual inspection methods.

A P P S

2D Measurement & Graticules

Intuitive on screen full 2D patented measurement application. Point to point, diameter, angle, adjustable X-Y grid, shapes and annotation features to accommodate a multitude of samples specifications.

Graticule creation allows samples to be analysed against on-screen digital templates with set tolerance limits. It also enables quick go/no-go defect analysis.

DXF Import & Export

Import a range of DXF files to create graticules for overlay comparison with parts.

Imported DXF files can be edited and annotated on the Omni 3 system.

Image Stitching

Stitch multiple images together, increasing your field of view at high magnification.

Perform full measurements on the full image. Document and annotate for traceability.



A P P S

Image Stacking

View a sample with different layers all in focus at the same time. Omni 3 automatically captures several images from 2 to 12 at different focal depths and creates an image based on the sharpest regions from each of these separate captures.

Image Comparator Side by Side

Visually compare your live sample image to a stored master image in the form of a split screen. Add notes through annotation and save the comparison image for documentation and traceability. Enables rapid identification of differences between gold sample and test samples.

Image Comparator Overlay

Create an image overlay of a master image to identify defects by overlaying and flashing the live sample image against the stored master image.

Enables rapid identification of differences between gold sample and test samples.

FEATURES & BENEFITS

Super Fast Auto-Focus™

Place the sample under the Omni 3 and it will immediately focus on your part throughout the inspection process. Inspect your parts up to three times faster. Quickly and seamlessly inspect your part without having to adjust manual focus or change the height of the part.

SpotFocus™

Quickly focus on the area of interest by simply using the mouse pointer. Increase speed, improve accuracy and reduce human error with the capabilities of SpotFocus™. *

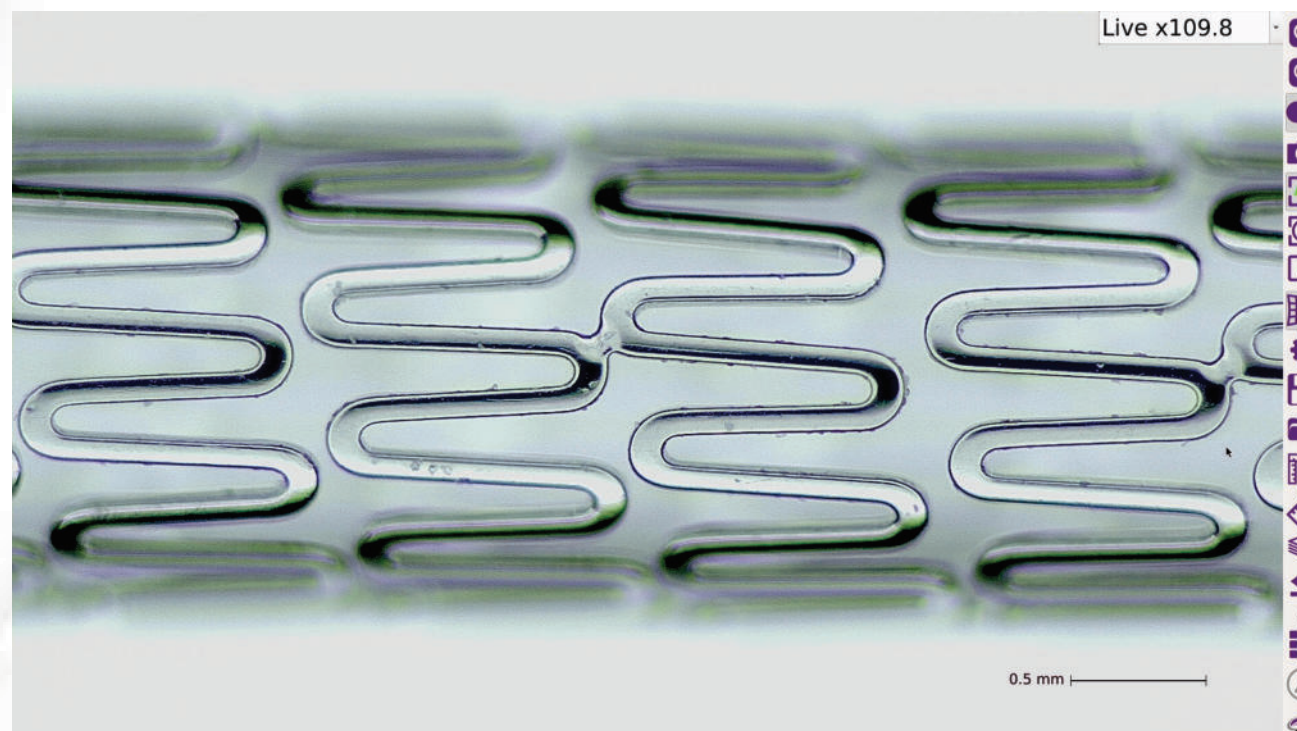
Manual Rocker Focus™

Use Manual Rocker Focus™ to accurately adjust the focus level to your region of interest. Save time by quickly adjusting the focus level using the rocker icon to inspect specific regions on an object when in manual focus mode.

Advanced Camera Settings

The new Advanced Camera Settings gives the user more power and control to enhance the image for a wide range of inspection and measurement capabilities.

Ensure image quality exceeds your needs. Unlock the full potential of Omni 3 by fine-tuning sharpness, contrast, saturation and camera shutter speed to suit your specific requirements.



FEATURES & BENEFITS

Superb Image Quality

Experience unrivalled Full HD video imaging never seen before in an ASH system. AshCam+™ enables vibrant image quality ensuring true representation of your sample.

Omni 3 offers an enhanced, crystal clear image for even the most demanding inspection applications.

AshTruColour™ - True Colour Reproduction

View true colour reproduction of your sample with Omni 3. AshCam+™ brings next generation colour reproduction to Omni 3.

Replicate real and accurate colours as seen with the naked eye for true colour representation. *

Zero Video Latency

There is zero delay between movement under Omni 3 and what you see on the screen, resulting in a more efficient inspection process. Omni 3 is 3x times faster than our previous systems.

View parts in real time with no video lag, allowing you to comfortably inspect, rework, modify or assemble anything.

Improved DoF

The Omni 3 has improved depth of field, making inspection much faster and more efficient without the need for changing focus positions or adjusting camera height.



FEATURES & BENEFITS

AshCal™

Omni **3** is factory calibrated before shipping. No time is wasted performing recalibrations between changing magnifications.

RTLDC™

Real-Time Lens Distortion Correction™*. Lens distortion is inherent in all microscopes. Image distortion at the outer edges of large samples is automatically corrected by the Omni **3**. *

User Privileges

User privilege settings enables operational control and traceability. Assign multiple users with access to different settings and features, improving security and streamlining the inspection process.

Interchangeable Lighting

Multiple types of interchangeable lighting available, including Ring Light, DomeLight, Polarised Light and UV Light to address any inspection application.

* Patent pending

Email

Save time by emailing directly from Omni **3**.

Save to Network

Networking enables direct saving to the server or cloud for increased workflow efficiency.

On Screen Preset Buttons

On Screen Preset Buttons allow quick access to pre-configured part-specific system settings.

Image Stamping

Image Stamping with time, date, user and magnification level. Easy documentation & traceability for accurate quality control records using image capture to USB key.

WHAT OUR CUSTOMERS SAY

30x faster inspection increases production throughput Pfizer

Challenge

To ensure the safety of pharmaceutical packaging, Pfizer required a sophisticated solution that was reliable and fast. The production process requires inspection and measurement of all pharmaceutical packaging to identify defects or anomalies. This process must be quick and accurate to ensure production levels are maintained. To date, this process was performed on an outdated machine which could not save or share images or reports detailing any findings or defects. In addition, the machine was stored in a facility outside of their department and could not be moved. This unnecessarily created additional operator time for each sample. The old system also took thirty minutes to start up.

Solution

Omni was the ideal solution for Pfizer. It provided a digitised, capable solution within their department for quick accessibility. This allowed for rapid inspection and measurement of defects. Reports are automatically generated and stored within Omni or an external USB, streamlining reporting for documentation and traceability. The Ash solution has also complimented their ability to work with international departments through live sharing results from the Omni via video meetings.

Result

Originally, Pfizer's process, from start to finish, took thirty minutes, it's now down to less than one minute. And all aspect of the process are improved – better identification, capture, reporting and sharing. The footprint of the new solution is minimal relevant to the previous, and is sited alongside the production line.

11X faster. 3X accuracy. Sweet! British Sugar

Challenge

To ensure quality and food safety requirements are met British Sugar continually complete a lab test where they count live and dead yeast cells. To date this process has been done manually. A laborious process, that, by its nature is prone to human error. The operator, using a microscope, manually counting the white and blue cells on screen, manually inputting the data into spreadsheets, and applying some calculations. For some time British Sugar had been looking for a way to improve this process.

Solution

Paul Wrathmall from British Sugar presented Jamie Greatrix our Technical Sales Manager in the UK with their cell counting challenge. Jamie collaborated with our R&D department to explore possible solutions. British Sugar provided test samples and we set about built a working model in-house to solve the problem. We used our Acumen AI system, a customised App, and a custom mechanical jig to ensure lighting consistency. With a camera to automatically count white and blue cells. The system automatically applied the required algorithms, automatically saved the data, and automatically created a PDF report. We presented the solution to British Sugar, they were surprised and delighted with the speed, accuracy and completeness of the system and implemented it immediately.

Result

Our solution, so far, has reduced average task time from 17 minutes to 90 seconds. As the AI bot gets smarter task time will further reduce. With the task largely automated the possibility for human error was greatly reduced. The solution also streamlined the cell counting documentation and reporting process for British Sugar.

Included System Components



LENSES

+5 Lens



LIGHTS

LED Ring Light



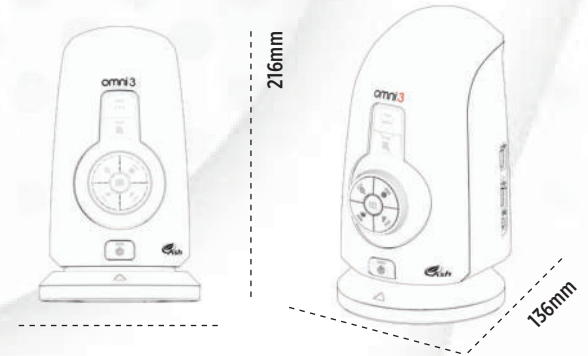
OTHERS

Wireless Keyboard and Mouse

USB Memory Stick

HDMI Cable

Technical Specifications



Camera Specifications

| | Lens Type | +5 | +10 Plan 1x | +25 | +50 |
|---------|-------------------------|-------------------------------------|-------------------------------------|--------------------------------------|---------------------------------------|
| Optical | Magnification Range (X) | 2.5 - 68 | 4.8 - 136 | 54.7 - 336 | 109.4 - 673 |
| | X-axis FOV (mm) | 200 - 7.5 | 76 - 3.8 | 9.3 - 1.5 | 4.6 - 0.76 |
| | Y-axis FOV (mm) | 112 - 4.2 | 59.5 - 2.1 | 5.4 - 0.85 | 2.6 - 0.43 |
| Digital | Magnification Range (X) | 69d - 136.5d | 137d - 272d | 337d - 673.3d | 674d - 1346d |
| | X-axis FOV (mm) | 7.5 x 3.75 | 3.8 x 1.9 | 1.5 x 0.75 | 0.76 - 0.37 |
| | Y-axis FOV (mm) | 4.2 x 2.1 | 2.1 x 1.1 | 0.85 x 0.425 | 0.43 - 0.22 |
| | Working Distance (mm) | 195 | 78 | 36 | 34 |
| | Depth of Field (mm) | 80 (min. zoom) / 0.5 (max. optical) | 35 (min. zoom) / 0.1 (max. optical) | 0.3 (min. zoom) / 0.1 (max. optical) | 0.1 (min. zoom) / 0.05 (max. optical) |

Optional System Components



LENSES

+5 Lens
AI 280-150

+10 Plan 1x Lens
AI 100-055

+25 Lens
AI 100-053

Ash 360 Rotating Viewer
AI 801-422

Polarising Lens (Analyser)
AI 100-041

Sub-Stage Polarising Film & Analyser
AI 801-835

Sub-Stage Polarising Film
AI 801-836

Polarised Ringlight & Analyser (58mm)
AI 801-423



LIGHTS

Diffused LED Dome Light
AI 100-045

UV Ring Light 367nm
AI 801-421

Polarised Ringlight & Analyser (58mm)
AI 801-423



CONTROLLERS

KPII External Keypad
FI 806-002

KIII External Keypad
FI 806-003



OTHERS

Ash PC Capture
AI 100-052

24" Monitor
AI 801-416

Hard Carry Case
AI 801-563



STANDS & STAGES

XY Stage for Uplight
AI 100-011

XY Stage
AI 100-010

Large XY Stage
AI 100-057

Dual Arm Boom Stand
AI 100-038

Oblique Tilting Stage
AI 801-414

Illuminated Track Stand
AI 100-036

Track Stand
AI 100-037

Articulated Arm Stand
AI 100-039

2-D Measurement Accuracy

| Accuracy (%) | +/-1 | +/-1 | +/-1 | +/-1 |
|--------------|------|------|------|------|
|--------------|------|------|------|------|

Z Height Range & Accuracy

| Lens Type | Range | Accuracy |
|-------------|----------|-------------|
| +5 | 0 - 25mm | 100 μ m |
| +10 Plan 1x | 0 - 6mm | 100 μ m |

Technical Specifications

Magnification Range (with supplied +5 Lens)
Camera Resolution
Monitor Connections
Monitor Requirements
Input / Output

Internal Storage
Image Capture

Power
Dimensions
Weight
Operating Temperature

OMNI 3

2.5 - 68 (Optical)
69d - 136.5d (Digital)
1920 x 1080 Pixels
HDMI / DVI
HD Ready / Full HD (Recommended)
HDMI Output
USB 2.0 (x4 Ports)
Mini USB Port
General Purpose IO (x3 Ports)
DC Power Jack 24V

16GB
Internal Storage
Removable USB Image Storage
USB on the Go (PC Connectivity)

24W
216mm x 125mm x 136mm
1.5kg
Storage 10°C to 60°C
Operating 5°C to 40°C



INSPEX 3

SMART DIGITAL
MICROSCOPE SYSTEM





INSPEX 3

SMART DIGITAL MICROSCOPE SYSTEM

Powerful, flexible and intuitive HD digital microscope incorporating our new 30x HD Camera module. Ideal for industries such as medical device, pharma, precision engineering and electronics.

Unique, patented, high-speed image processing algorithms for exceptional image quality. Super-fast focus speed and smooth digital zoom. Simpler, easier, more efficient inspection.

FEATURES & BENEFITS

Instantly transform your manufacturing process with Inspex 3

Superb Image Quality

Experience unrivalled Full HD video imaging never seen before in an Ash system. The Inspex 3 offers an enhanced, vibrant, crystal clear image for even the most demanding inspection applications.

Super Fast Auto-Focus™

Place the sample under the Inspex 3 and it will immediately focus on your part throughout the inspection process. Inspect your parts up to three times faster. Quickly and seamlessly inspect your part without having to adjust manual focus or change the height of the part.

Manual Rocker Focus™

Use Manual Rocker Focus™ to accurately adjust the focus level to your region of interest. Save time by quickly adjusting the focus level using the rocker icon to inspect specific regions on an object when in manual focus mode.

SpotFocus™

Quickly focus on the area of interest by simply using the mouse pointer. Increase speed, improve accuracy and reduce human error with the capabilities of SpotFocus™. *

* Patent Pending

FEATURES & BENEFITS

Instantly transform your manufacturing process with Inspex 3

AshCal™

Save time with AshCal™. Factory calibration tracking for all lenses. No recalibration when changing magnification levels, giving consistent, accurate measurement with every zoom.

Image Stacking

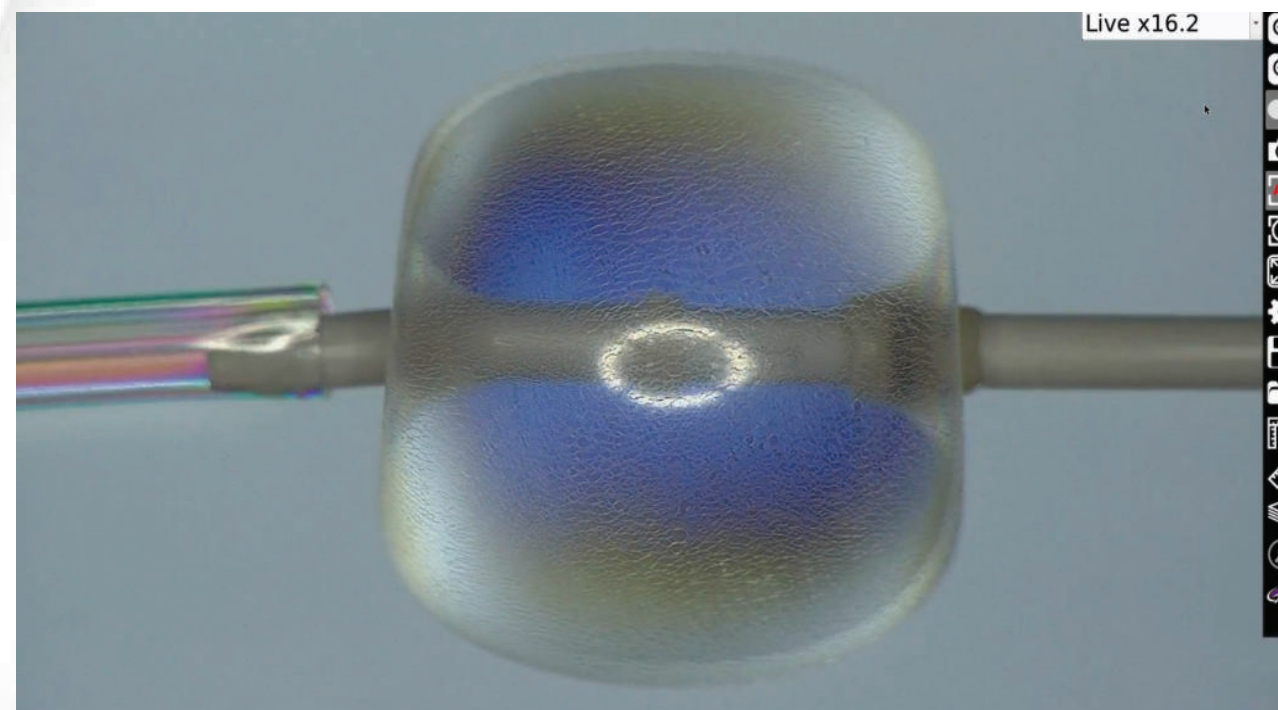
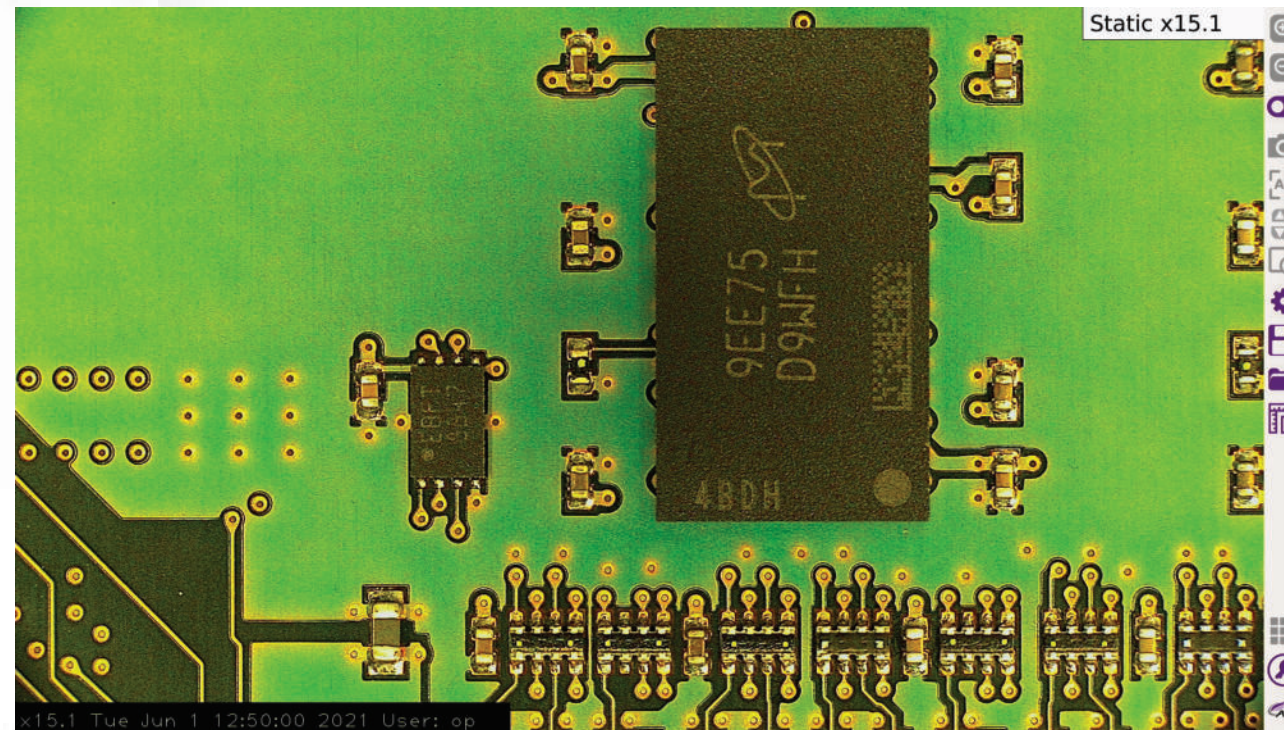
Inspex 3 automatically captures several images at different focal depths to create a fully focused, sharp, clear image for easy inspection. Save time by removing the need to adjust the camera height or manual focus.

2D Measurement & Graticules

Point to point measurement and annotation of samples and creation of graticules.

Presets & Graticules

Graticule creation allows samples to be analysed against on-screen digital templates with set tolerance limits. It also enables quick go/no-go defect analysis. This improves efficiency in high-volume sample through-put inspection. Presets can be customised to store and easily recall specific system settings and measurement detail.



FEATURES & BENEFITS

Instantly transform your manufacturing process with Inspex 3

AshTruColour™ – True Colour Reproduction

Experience unrivalled Full HD video imaging never seen before in an Ash system. The Inspex 3 offers an enhanced, vibrant, crystal clear image for even the most demanding inspection applications.

Networking

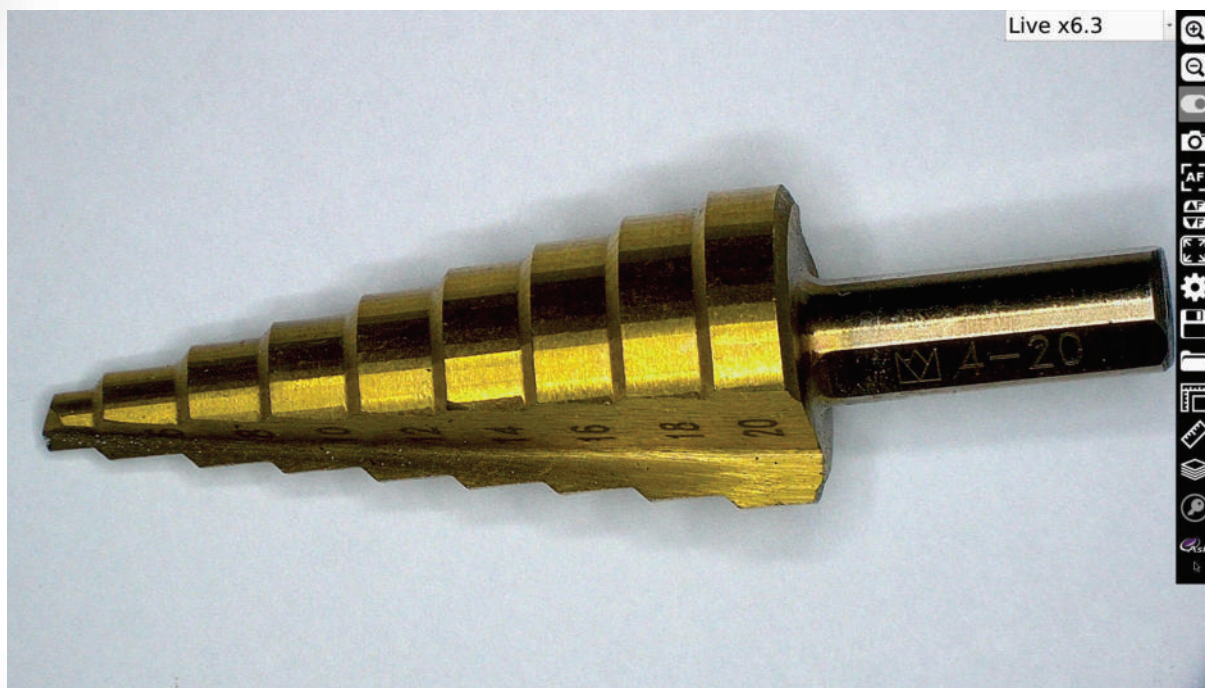
Networking enables direct saving to the server or cloud for increased workflow efficiency.

Advanced Camera Settings

The new Advanced Camera Settings gives the user more power to enhance the image for a wide range of inspection and measurement capabilities. Tailor sharpness, contrast, saturation and camera shutter speed to suit your particular application.

RTLDC™

Real-Time Lens Distortion Correction™ (Patent Pending). Lens distortion is inherent in all microscopes. Image distortion at the outer edges of large samples is automatically corrected by the Inspex 3.



FEATURES & BENEFITS

Instantly transform your manufacturing process with Inspex 3

No Video Latency

The video from the Inspex 3 has zero delay. It's 3x times faster than our previous systems. View parts in real time with no video lag, allowing you to comfortably inspect, rework, modify and assemble any part. There is no delay between movement under the camera and what you see on the screen.

User Privileges

User privilege settings enables operational control and traceability. Assign multiple users with access to different settings and features, improving security and streamlining the inspection process.

Improved DoF

The Inspex 3 has improved depth of field, making inspection much faster and more efficient without the need for changing focus positions or adjusting camera height. Image distortion at the outer edges of large samples is automatically corrected by the Inspex 3.

WHAT OUR CUSTOMERS SAY

30x Faster Inspection. Improved Quality.

Natec

Challenge

Digitise Process to Improve Quality and Save Time

Natec required a shift from manual magnifiers to a digitised solution. They wished to increase the quality of their products and identify defects faster and more accurately. Moreover, they wished to improve the overall wellbeing of their operators through an ergonomic solution.

Solution

Digitised Solution. Improved Operator Ergonomics & Product Quality!

Natec has integrated many Inspex and Omni solutions into their cleanroom over the past three years. These solutions provide a streamlined process for visual inspection and final dimension control.

Result

30% Faster Inspection. Improved quality.

Guillaume Balland, title, Natec explains the impact "inspection time has been reduced by 30% since shifting from manual magnifiers to Ash. Even more importantly we have been able to increase the overall quality of our products. Ash solutions are extremely reliable and precise, and are accessible for all operators. Incorporating their technology into our process has allowed us to exceed our daily operations, providing faster qualitative root cause analysis on daily defects, permitting us to better characterise our defects and establish workmanship standards. We can now perform precise investigations with the OMNI and Inspex. This was not possible with a manual magnifier. We look forward to further innovations from Ash – helping to continue improving our manufacturing and quality expertise in the medical device industry.

WHAT OUR CUSTOMERS SAY

Transformed process. Projects 4X faster.

Fly Evidence

Challenge

Faster, accurate classification of biological samples.

FlyEvidence provide an insect identification service. They were using manual inspection which involved using a drawing tube on an optical microscope. Inspection was tedious. The user was required to trace around the sample using pencil and paper before being reduced or magnified on a standard photocopier. The user was then required to manually trace the sample again with permanent ink. The process took hours and days to complete. FlyEvidence wanted to solve this problem with a fast, reliable and accurate digital solution.

Solution

Transformation to Digital. Streamlined inspection and automated reporting.

Ash provided a digital solution to solve this application. This enabled high-quality research output due to advanced algorithms and capabilities. Customer reports are now streamlined and projects are executed in a satisfactory timeframe.

Result

4X faster project delivery

Andrew Whittington, title, FlyEvidence talks about the impact: "Omni 3 has reduced our inspection timeframe by 75%. Omni 3 provided a rapid, digital inspection solution which removed human subjectivity and sped up overall inspection time. This has also strengthened relationships with customers and improved company reputation. Previously, projects would take three-to-four months to complete. With the power of Omni 3, the same project now takes less than one month."

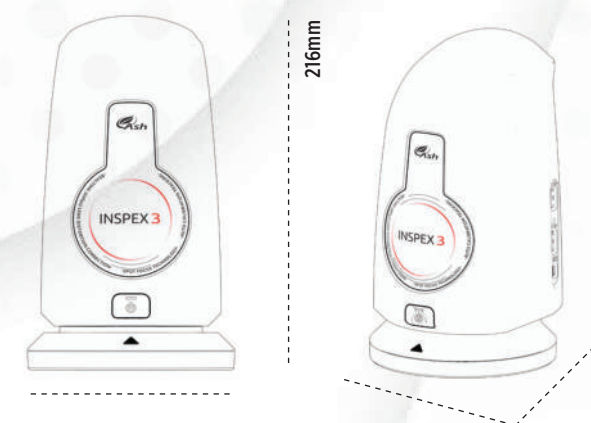
Included System Components



INSPEX 3

FI 806-001

Technical Specifications



Magnification

| | Lens Type | +5 | +10 Plan 1x | +25 | +50 |
|---------|-------------------------------|----------------------|----------------------|----------------------|----------------------|
| Optical | Magnification Range (X) | 2.1 - 65.6 | 4.1 - 130 | 51.7 - 323.4 | 97.7 - 628 |
| | X-axis FOV (mm) | 240 - 8.34 | 80 - 4.1 | 3.5 - 1.75 | 2.1 - 1 |
| | Y-axis FOV (mm) | 135 - 4.69 | 71 - 2.2 | 1.75 - 0.9 | 2 - 0.6 |
| Digital | Magnification Range (X) | 66.1d - 131.6d | 130.5d - 259.9d | 325d - 646.7d | 631.2d - 1256.1d |
| | X-axis FOV (mm) | 8.34 - 4.13 | 4.15 - 2.08 | 1.65 - 0.85 | 1.2 - 0.44 |
| | Y-axis FOV (mm) | 4.69 - 2.32 | 2.32 - 1.16 | 0.9 - 0.5 | 0.7 - 0.26 |
| | Working Distance (mm) | 195 | 79 | 49 | 36 |
| | Depth of Field (mm) | 80 - 0.5 | 42 - 0.2 | 0.3 - 0.015 | 15um - 4um |
| | Video Latency (milli seconds) | 20 (50Hz)/ 17 (60Hz) | 20 (50Hz)/ 17 (60Hz) | 20 (50Hz)/ 17 (60Hz) | 20 (50Hz)/ 17 (60Hz) |



LENSES

+5 Lens



LIGHTS

LED Ring Light



OTHERS

Wireless Keyboard and Mouse

USB Memory Stick

HDMI Cable

Optional System Components



LENSES

+5 Lens

AI 280-150

+10 Plan 1x Lens

AI 100-055

+25 Lens

AI 100-053

Ash 360 Rotating Viewer

AI 801-422

Polarising Lens (Analyser)

AI 100-041

Sub-Stage Polarising Film & Analyser

AI 801-835

Sub-Stage Polarising Film

AI 801-836

Polarised Ringlight & Analyser (58mm)

AI 801-423



LIGHTS

Diffused LED Dome Light

AI 100-045

UV Ring Light 367nm

AI 801-421

Polarised Ringlight & Analyser (58mm)

AI 801-423



CONTROLLERS

KPII External Keypad

FI 806-002

KIII External Keypad

FI 806-003

OTHERS

Ash PC Capture

AI 100-052

24" Monitor

AI 801-416

Hard Carry Case

AI 801-563



STANDS & STAGES

XY Stage for Uplight

AI 100-011

XY Stage

AI 100-010

Large XY Stage

AI 100-057

Oblique Tilting Stage

AI 801-414

Illuminated Track Stand

AI 100-036

Track Stand

AI 100-037

Articulated Arm Stand

AI 100-039

Dual Arm Boom Stand

AI 100-038

Technical Specifications

Zoom Range (with supplied +5 Lens)

Camera Resolution

Monitor Connections

Monitor Requirements

Input / Output

Internal Storage

Image Capture

Power

Dimensions

Weight

Operating Temperature

INSPEX 3

2.1 - 131.6x

1920 x 1080 pixels

HDMI / DVI

HD Ready / Full HD (Recommended)

HDMI Output

USB 2.0 (x4 Ports)

Mini USB Port

General Purpose IO (x3 Ports)

DC Power Jack 24V

16GB

Internal Storage

Removable USB Image Storage

USB on the Go (PC Connectivity)

24W

216mm x 165mm x 170mm

1.5kg

Storage -10°C to +60°C

Operating +5°C to +40°C



quantum

AUTOMATIC MULTI FOV
VIDEO MEASUREMENT SYSTEM



quantum



AUTOMATIC MULTI FIELD OF VIEW VIDEO MEASUREMENT SYSTEM

Quantum is a fully integrated, easy to use, instant measurement system with no PC requirement.

Advanced digital image processing technology. Multi FOV zoom levels reduce measurement time and increase inspection efficiency.

FEATURES & BENEFITS

Instantly transform your manufacturing process with Quantum

RTLDC™

Real-Time Lens Distortion Correction*. Lens distortion is inherent in all microscopes. Image distortion at the outer edges of large samples is automatically corrected by the Quantum.

AshCal™

Save time with AshCal™. Factory calibration tracking for all lenses. No recalibration when changing magnification levels, giving consistent, accurate measurement with every zoom.

2D Measurement & Graticules

Intuitive on screen full 2D patented measurement application. Point to point, diameter, angle, adjustable X-Y grid, shapes and annotation features to accommodate a multitude of samples specifications. Graticule creation allows samples to be analysed against on-screen digital templates with set tolerance limits. It also enables quick go/no-go defect analysis.

* Patent pending

FEATURES & BENEFITS

Instantly transform your manufacturing process with Quantum

Automatic Alignment

Automate your process. Remove subjectivity and eliminate human error. Increase efficiency. Integrate robots and cobots and free valuable resources to work on other projects.

Data Reporting

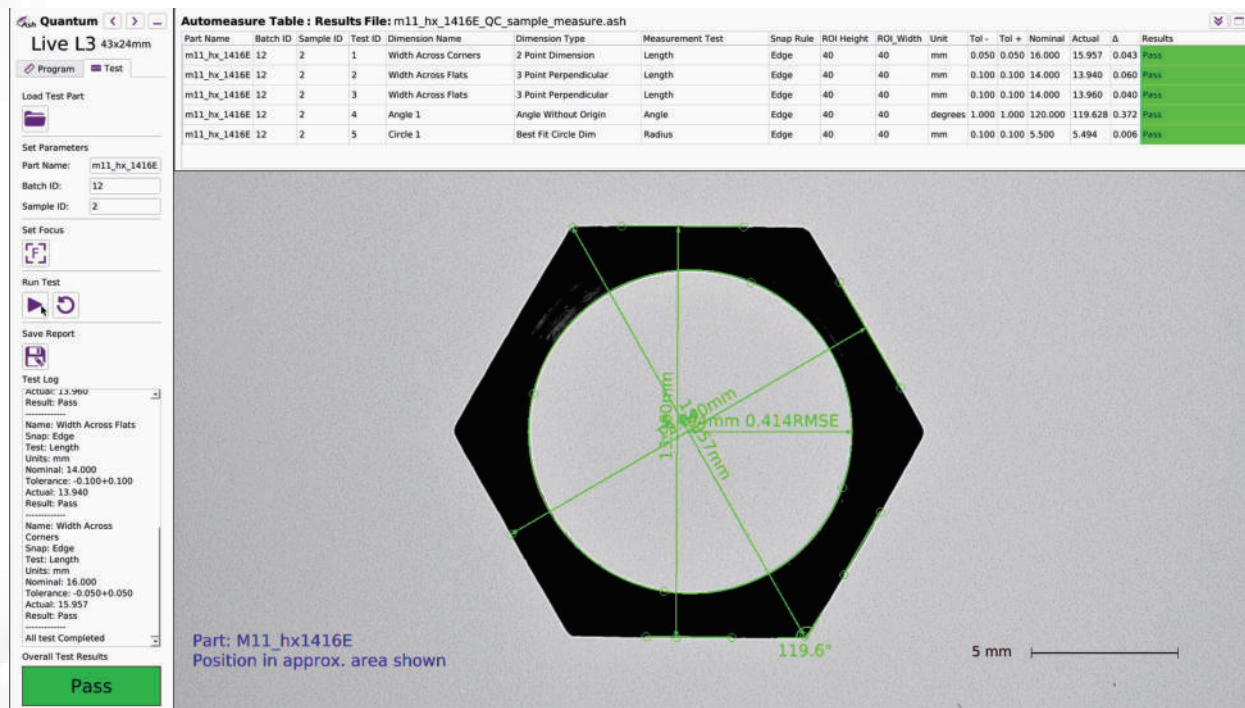
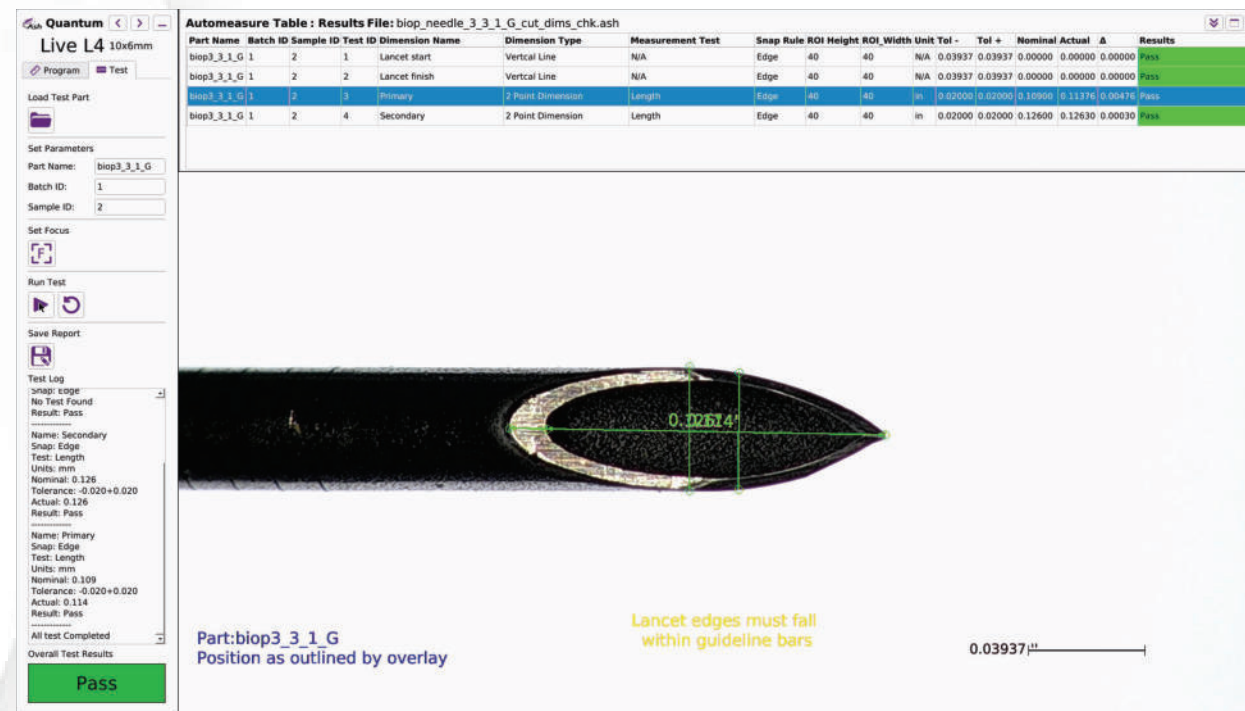
Automatic part alignment, removes the need for a jig. The position of a part is automatically identified and re-orientated to its programmed measurement position.

Instant Measurement

Place and press for fuss-free measurement. Save and recall programs for routine inspections. Simultaneous automatic measurements to speed up inspection time. Rapid pass/fail identification.

Program and Test

Program and test your parts in six easy steps.



INTUITIVE USER INTERFACE

PROGRAM AND TEST

PROGRAM

There are 6 easy steps to allow you to program your parts/setup your measurements.

- 1 Open new part
- 2 Select Field of View which best suits the size of the part
- 3 Set focus point
- 4 Set the optimal lighting conditions for the part
- 5 Define the edges of the part to ensure readiness for measurement
- 6 Ready to perform measurements as outlined in the Measurement Suite section

TEST

The Test option allows you to perform automatic testing of production parts.

Test your part against a master golden template to automatically identify defects. Simply load the test part, run the test and the results are clearly displayed on the screen. Results can be captured and exported to an Excel document for documentation and traceability.



Included System Components



LENSES

+5 Lens



LIGHTS

LED Ring Light



OTHERS

Wireless Keyboard and Mouse

USB Memory Stick

HDMI Cable

Optional System Components



LENSES

+5 Lens

AI 280-150

Polarising Lens (Analyser)

AI 100-041

Sub-Stage Polarising Film & Analyser

AI 801-835

Sub-Stage Polarising Film

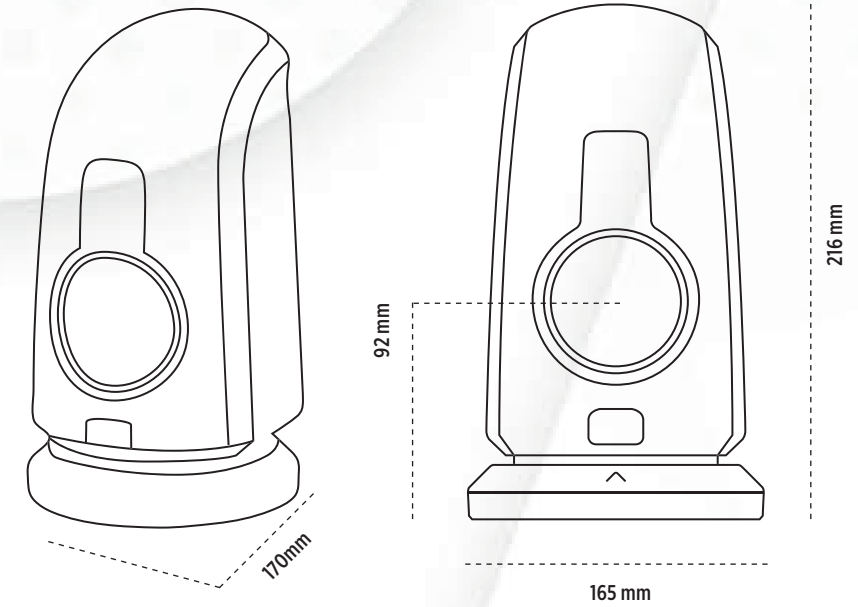
AI 801-836

Polarised Ringlight & Analyser (58mm)

AI 801-423

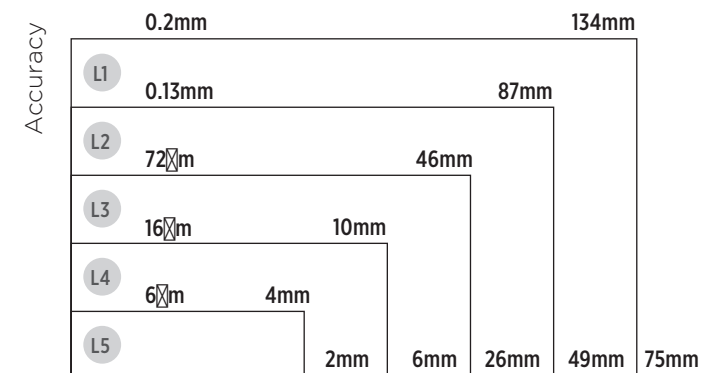


Technical Specifications



Multi Field of View System

RTLDC™ means no lens change is required to achieve multiple fields of view. Quantum uses digital correction on the live



Field of View Chart L1 - L5

Technical Specifications

| | |
|------------------|---|
| Lens | +5 lens with 5 fixed position zooms |
| FOV | 134mm x 75mm @ L1 mag; 87mm x 49mm @ L2 mag; 46mm x 26mm @ L3 mag; 10mm x 6mm @ L4 mag; 4mm x 2mm @ L5 mag; |
| Illumination | Quadrant controllable LED ring light; Sub-stage transmitted LED illumination |
| Power | 24 W |
| Dimensions | 216(H) x 165(W) x 170(D) mm |
| Weight | 1.75 kg |
| Temperature | Storage: -10°C to +60°C Operating: +5°C to +40°C |
| Video Format | Full HD (1920 x 1080p) at 50/60fps |
| Internal Storage | 10 GB |
| Image Save | JPEG, BMP, |
| Format | Ash Measurement Format |
| Input/Output | HDMI Out, USB 2.0 Port x 4 RJ45, Ethernet Connector (for networking), General Purpose IO x 3, DC Power Jack (24V) |



INSPEX HD TABLE

HIGH-DEFINITION
DIGITAL MICROSCOPE



INSPEX HD TABLE

HIGH-DEFINITION DIGITAL MICROSCOPE



A portable full HD solution for rapid inspection in manufacturing plants. Fully integrated, compact stand allows it to be used in any part of the production environment. Experience Full HD image quality with no delay. The ideal solution for those wishing to digitise and simplify their inspection process.

Ergonomically designed, allowing for less operator fatigue and improved production efficiency. Simple, fast, high-quality inspection. Ideal for repair, rework, assembly and quality control in any manufacturing industry.

FEATURES & BENEFITS

Instantly transform your production process with Inspex HD Table

Compact and Portable

Fully portable, compact design with a small footprint.

Experience the power of the Inspex HD wherever you need it with its simple configuration. Simply plug in, switch on, and inspect.

Superb Image Quality

Accurate and detailed inspection with superb HD image resolution, colour reproduction, contrast and resolution and integrated LED illumination.

Zero Video Latency

Real-time movement under Inspex HD, resulting in a more efficient inspection process.

View parts in real time with no video lag, allowing you to comfortably inspect, rework, modify or assemble anything.



FEATURES & BENEFITS

Instantly transform your production process with Inspex HD Table

Image Capture

Easy documentation and traceability for accurate quality control records. Store images directly to USB. Simply plug and go!

Working Distance

SLWD (Super Long Working Distance) objective lens for extra-large part viewing.

Wide Dynamic Range

View dark and bright areas simultaneously without saturation. Wide Dynamic Range uses overlapping multiple exposures depending on the saturation level of each pixel.

On Screen Dimensioning

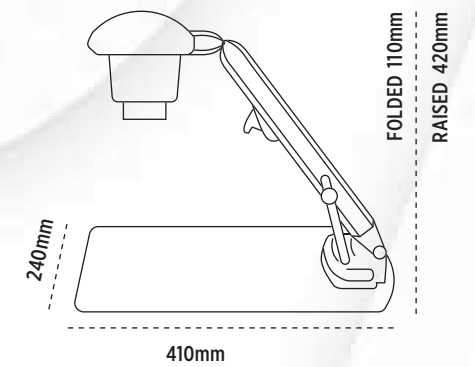
Integrated, real time, on screen patented measuring grids and cursors provide a simple and effective way to measure without a PC.



Included System Components



Technical Specifications



LENSES

+5 Lens



OTHERS

Memory Stick, HDMI Cable

Optional System Components



LENSES

+3 Lens

AI 280-129

+4 Lens

AI 280-125

+5 Lens

AI 280-123

+10 Lens

AI 280-124

Lens Polarizing Filter

AI 280-145

Lens Protector

AI 100-061



LIGHTS

8-Point LED Ring Light

AI 100-012

Polarizer for 8-Point LED Ring Light

AI 100-000

Diffused LED Dome Light

AI 100-001

LED Fibre Optic Illuminator with Dual Gooseneck

AI 100-033

UV Ring Light

AI 100-026 220V 254nm

AI 100-005 220V 375nm

AI 100-035 110V 254nm

AI 100-034 110V 375nm



CONTROLLERS

KP1 External Keypad

AI 801-414

Required to activate dimensioning grids

Footswitch

AI 801-415

OTHERS

Ash PC Capture

AI 100-052

24" Monitor

AI 801-416

Hard Case

AI 801-561

Soft Case

AI 801-566



STANDS & STAGES

XY Stage

AI 100-010



Track Stand Vesa Flex Cam

AI 100-028



Track Stand Vesa & Vesa Short Flex Cam

AI 100-019



Track Stand Vesa Short

AI 100-020

XY Stage for Uplight

AI 100-011



Uplight Track Stand Vesa & Vesa Short Flex Cam

AI 100-023

Oblique Tilting Stage

AI 801-414

Height Adjustable Stage

AI 801-413

XY Stage Large

AI 100-057

Magnification

| Lens (Dioptre) (mm) | 2 | 3 | 4 | 5 | 10 |
|--|-----------------------|-------------------|-------------------|------------------|------------------|
| Max Height (mm) | 500 | 333 | 250 | 200 | 100 |
| Min Height | 405 | 280 | 205 | 170 | 85 |
| Minimum Magnification* | 1.1 | 1.3 | 2 | 2.5 | 4 |
| Maximum Magnification* Optical/Digital | 29/57 | 36/71 | 50/98 | 62/122 | 121/237 |
| Field of view at minimum mag. (mm) | X: 595 Y: 334 | X: 400 Y: 225 | X: 280 Y: 164 | X: 231 Y: 136 | X: 60 Y: 50 |
| Field of view at maximum mag. (mm) | X: 20/10 Y: 11/5.5 | X: 14/7 Y: 8/4 | X: 10/5 Y: 6/3 | X: 8/4 Y: 5/2 | X: 5/2 Y: 3/1 |
| Maximum depth of field | 176 | 120 | 106 | 78 | 57 |
| Minimum depth of field | 5 | 4 | 1 | .50 | .20 |

Specifications obtained using a 24" Monitor. * Depth of field measured with optimal image settings.

Technical Specifications

| | Table |
|---------------------------------|---|
| Zoom Range (with supplied Lens) | 4D lens - 2x - 98x |
| Camera Resolution | HD 1080p, 1920 x 1080 at 50/60 Hz |
| Monitor Connections | HDMI / DVI |
| Monitor Requirements | HD Ready / Full HD (Recommended) |
| Power | 8 Watts |
| Dimensions | Table 240mm x 410mm Folded Height 110mm, Raised Height 420mm |
| Weight | 2.5kg |
| Operating Temperature | Storage -10°C to +60°C Operating +5°C to +40°C |
| Image capture | USB 2.0 highspeed |



INSPEX HD VESA

HIGH-DEFINITION
DIGITAL MICROSCOPE





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HIGH-DEFINITION DIGITAL MICROSCOPE

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FEATURES & BENEFITS

Instantly transform your production process with Inspex HD Vesa

Multiple Configurations

Inspex HD is available in several different configurations to meet your needs.

Short, long or flexible, the ultra-versatile Vesa can be tailored to meet your needs.

Superb Image Quality

Accurate and detailed inspection with superb HD image resolution, colour reproduction, contrast and resolution and integrated LED illumination.

Zero Video Latency

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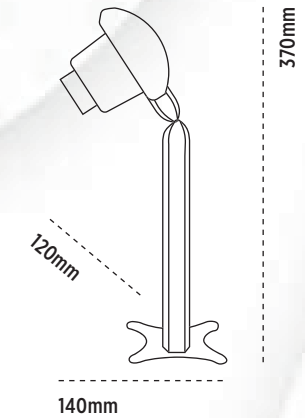
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|---------------------------------|---|
| Zoom Range (with supplied Lens) | 5D Lens - 2.5x - 122x |
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| Monitor Requirements | HD Ready / Full HD (Recommended) |
| Power | 8 Watts |
| Dimensions | 370mm x 120mm x 140mm |
| Weight | 1.2kg |
| Operating Temperature | Storage -10°C to +60°C Operating +5°C to +40°C |
| Image capture | USB 2.0 highspeed |



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