# Digital Microscope and Measurement System



## **INSPEX** 3

**Smart Inspection** 





## **Smart Inspection**



**Simply Smarter** 

## Digital Microscope System

Inspex 3 is a powerful, flexible and intuitive HD digital microscope designed around ASH's new 30X HD Camera module.

This zoom camera module was designed by ASH to meet industrial inspection needs.

ASH has developed unique patented high-speed image processing algorithms deliver exceptional image quality, super-fast focus speed, and smooth digital zoom that makes inspection simpler, ergonomic and efficient.

Inspex 3 is ideal for industries such as medical device, pharma, precision engineering and electronics.

The benefits of the Inspex 3 system are clear to see.



## **Smart Inspection**

#### **New Features**

Inspex 3 is the latest evolution from ASH. Incorporating the AshCam<sup>™</sup> module with a wide range of additional and improved capabilities.

#### Superb Image Quality

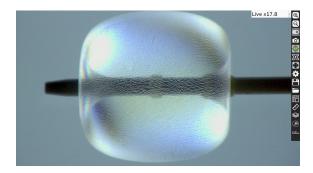
Experience unrivalled Full HD video imaging never seen before in an Ash system.

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



#### **Super Fast Auto-Focus**

Place any part under the camera and it will immediately adjust the focus position allowing you to seamlessly inspect your part without having to adjust manual focus or change the height of the part.



#### **Manual Rocker Focus**

Automatically and rapidly adjust the focus using the rocker icon to inspect the area of interest on a sample part when in manual focus mode.

No need to manually adjust to change focus position.



#### SpotFocus™

Quickly focus on the area of interest by simply using the mouse pointer.

Improve accuracy and reduce human error with the capabilities of Spot Focus\*



#### AshTruColour™ - True Colour Reproduction

View true colour reproduction of your sample with the Inspex 3. Replicate real colours as seen with the naked eye.



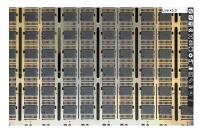
#### **Advanced Camera Settings**

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

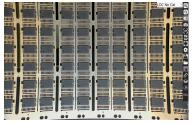


#### $RTLDC^{\mathsf{TM}}$

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 Inspex 3.



Inspex 3 RTLDC



Without RTLDC

#### No Video Latency

The video from the Inspex 3 has zero delay. It's 3x times faster. View parts in real time with no video lag, allowing you to comfortably inspect, rework, modify and assemble any part.



The Inspex 3 maintains the following improved great features introduced with the hugely successful Inspex II.



#### AshCal™

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



#### 2D Measurement & Annotation

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



#### **User Privileges**

User privilege settings enables operational control and traceability.



#### Interchangeable Lighting

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



#### **Image Stacking**

Inspex 3 automatically captures several images at different focal depths to create a fully focused, sharp, clear image for easy inspection.



#### 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.

### is the latest evolution

AshCal™ Automatic Calibration Tracking

Improved
Auto-Focus Speed

**New! Spot Focus** 

Rocker Focus

No Video Latency

Improved
Depth of Field

Improved Sensitivity

Smooth Magnification Zoom

 $RTLDC^{\text{\tiny M}}$ 



**Simply Smarter** 







## Digital Microscope System

### **Smart Inspection**



### **Applications**

- In Process Visual Inspection, Rework and Assembly of Component Parts
- Connected for Traceability and Documentation. Store images and data on the Cloud.
- Large Scale Inspection in a Production Environment
- Final QC Release Inspection

### **Industries**

- Medical Device Manufacture
- Pharma
- Precision Engineering
- Electronics



#### **Dakin Flathers**

"Theeaseofusehasmeantthatwehave hadnoissueswithoperatorengagement andeveryonewhoweaskedinsistsithas takenawayanydegreeofuncertaintythat wasalwaysevidentinanaloguechecks.

From apersonal point of view, right from the initial demonstration throught otheafter-salesservice, Icannotfault the staff at ASH, who have gone over-and-above to assist however they have been able. Possiblythegreatesttestamenttotheunit isthatothersectionswithinthefactory haveseenthepotentialitbringsandhave begunmakingtheirowncasetomeforthe purchaseofadditionalunits. Ihavetosay, it is only a matter of time!"



Pádraig McVeigh, Creganna - TE Connectivity

### Conductix Wampfler

"ASH supplied a digital microscope system to help assessment of tube finishes without major impact to the overall cycle of production. ASH have providedexcellentsupportfromproblem classification, through vision system development, rightto fixturing and set-up support.

The speed of the response and ability to meet our tight timeline was very impressive.

The availability and assistance from teammembersofalllevels, from Salesto Engineering, was invaluable to our team!"





Roland Rücker, Quality Engineer Optoelectronics, Germany

### Heraeus Noblelight GmbH

with the smallest possible surface differences between 5 and 500 microns withoutfatique.Likewise,wewantedto createsharpimageswiththeabnormalities and these surveying. The implementation of these requirements has now been confirmedinpracticebyouremployees.

"Ourgoal was to acquire a microscope What also stands out is the intuitive user interface our employees were able to usewithinaveryshorttime. The support from their side for commissioning andtechnicalquestionsisalsotobepositively emphasized.Wecanhighlyrecommend thismicroscopebecauseofourpositive experiences and you as a partner."



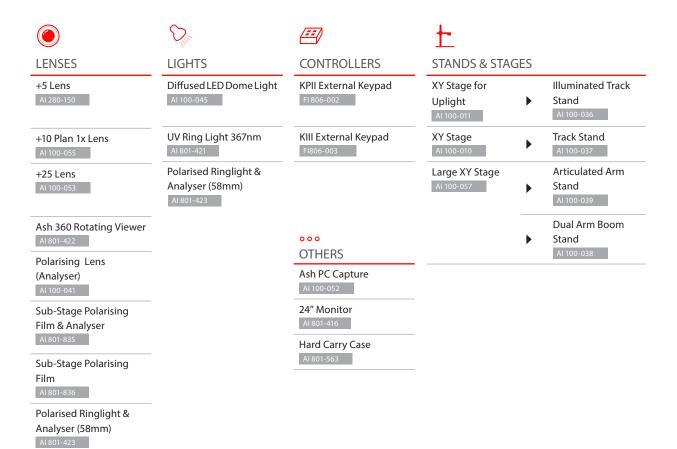




### System Components Included

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LENSES	LIGHTS	OTHERS		
+5 Lens	LED Ring Light	Wireless Keyboard and Mouse	USB Memory Stick	HDMI Cable

### **Optional System Components**









#### Magnification

	Lens Type	5	10 Plan 1x	25
Optical	Magnification Range (X)	2.1 - 61.1	4.1 - 122.2	170 - 305
	X-axis FOV (mm)	240 - 8.34	80 - 4.1	3.5 - 1.75
	Y-axis FOV (mm)	135 - 4.69	71 - 2.2	1.75 - 0.9
Digital	Magnification Range (X)	61.1d - 123.2d	122.8d - 244.4d	330d - 640d
	X-axis FOV (mm)	8.34 - 4.13	4.15 - 2.08	1.65 - 0.85
	Y-axis FOV (mm)	4.69 - 2.32	2.32 - 1.16	0.9 - 0.5
	Working Distance (mm)	196	79	44
	Depth of Field (mm)	80 - 0.5	42 - 0.2	0.3 - 0.0015
	Video Latency (milli seconds)	20/17	20/17	20/17

#### **Technical Specifications**

	INSPEX 3		
Zoom Range (with supplied +5 Lens)	2.1 - 123.2x		
Camera Resolution	1920 x 1080 pixels		
Monitor Connections	HDMI / DVI		
Monitor Requirements	HD Ready / Full HD (Recommended)		
Input / Output	HDMI Output USB 2.0 (x4 Ports) Mini USB Port General Purpose IO (x3 Ports) DC Power Jack 24V		
Internal Storage	16GB		
Image Capture	Internal Storage Removable USB Image Storage USB on the Go (PC Connectivity)		
Power	24W		
Dimensions	216mm x 165mm x 170mm		
Weight	1.5kg		
Operating Temperature	Storage -10°C to +60°C Operating +5°C to +40°C		

#### www.ashvision.com

#### **Authorized Dealer:**

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At Ash we design, develop and manufacture all our user centric solutions in-house and are proud of our award winning innovation process. We use creative Design Thinking to actively empathise with our customers to understand their real unmet needs and jobs to be done. We seek meaningful engagement and co-creation with our end users so we can develop the best possible solutions and services in the quality assurance industry resulting in cost savings, increased workflow efficiency, waste reduction and an overall improved quality process.

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