

# Advanced Digital Microscopes and Measurement Systems

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MICROSCOPY • METROLOGY SERVICES

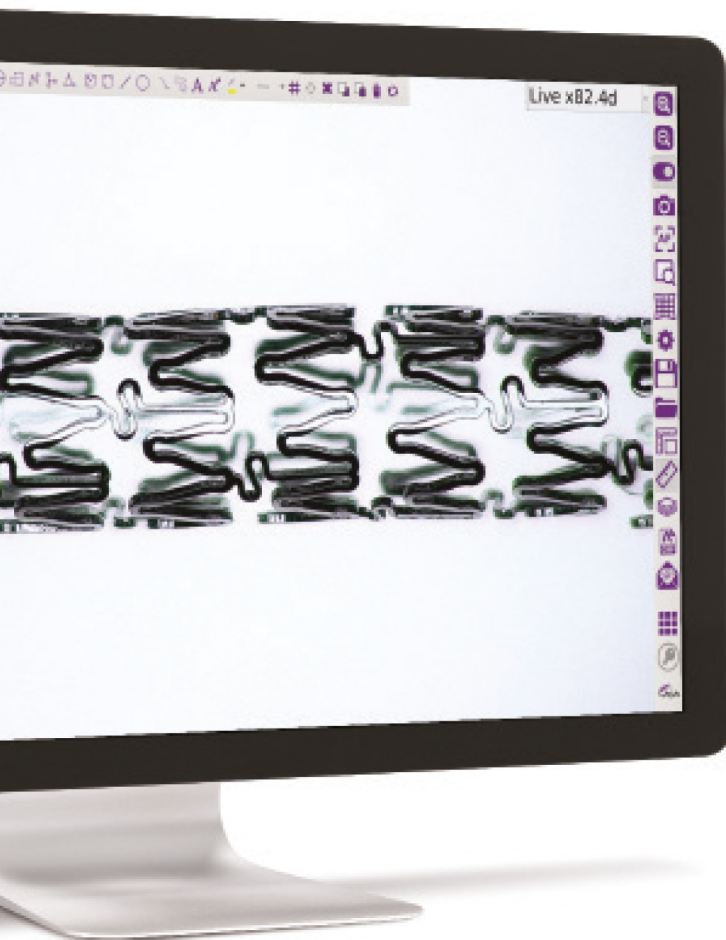
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# omnicore

powering potential from the core



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## Powering Potential from the core

# Key Features

Not all inspection needs and requirements are the same. That's why we have developed a platform to suit a multitude of needs.



### AshCal™

All Omnis are factory calibrated before shipping. No time is wasted performing recalibrations between changing magnifications



### RTLDC™

Real Time Lens Distortion Correction algorithm corrects lens distortion for consistent inspection across the entire field-of-view



### Save to Network

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



### User Privileges

User privilege settings enables operational control and traceability



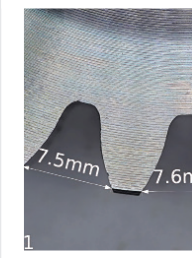
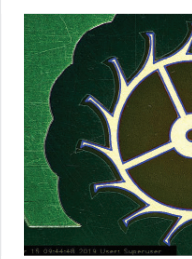
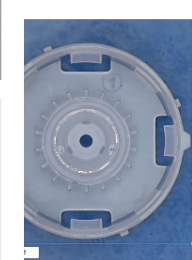
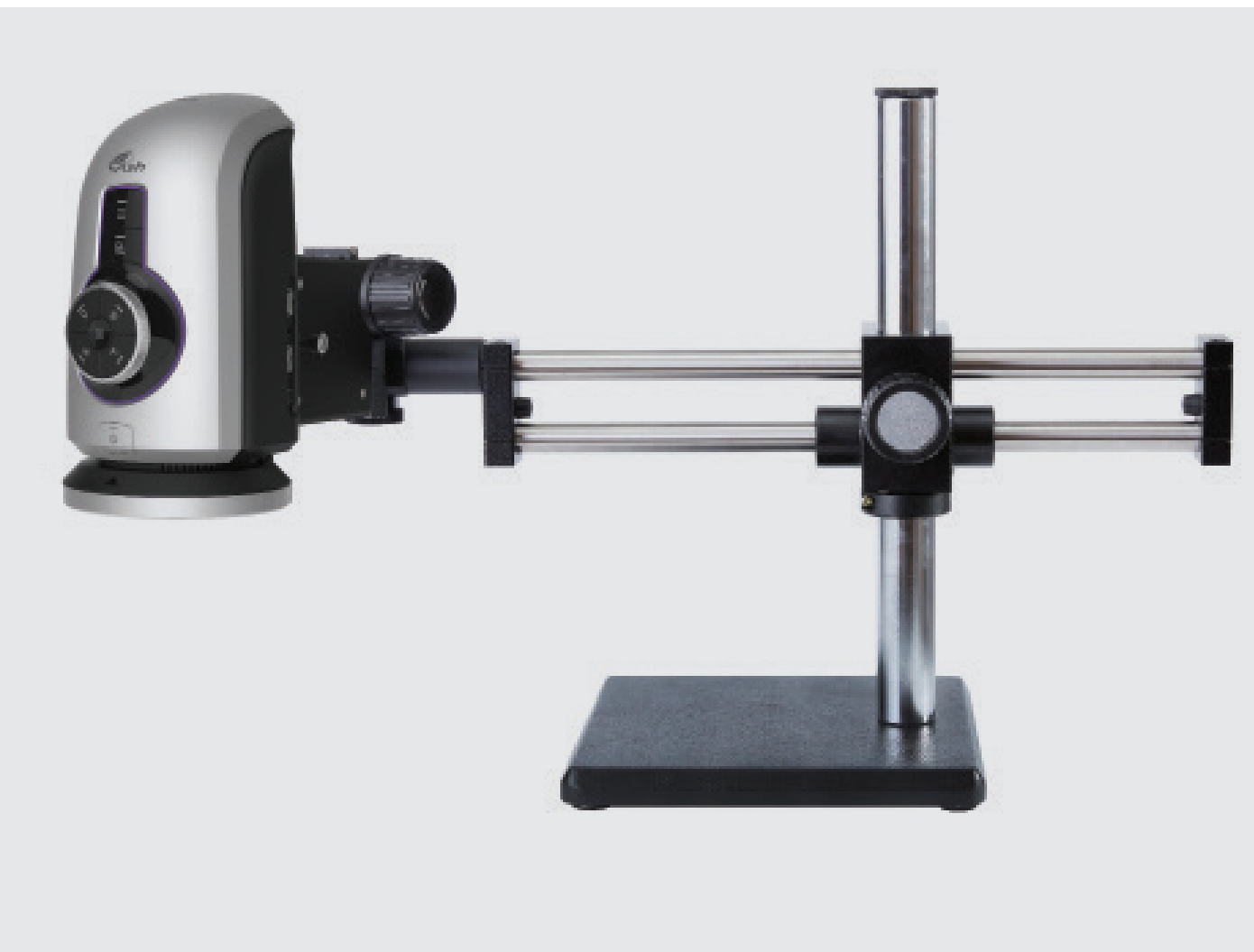
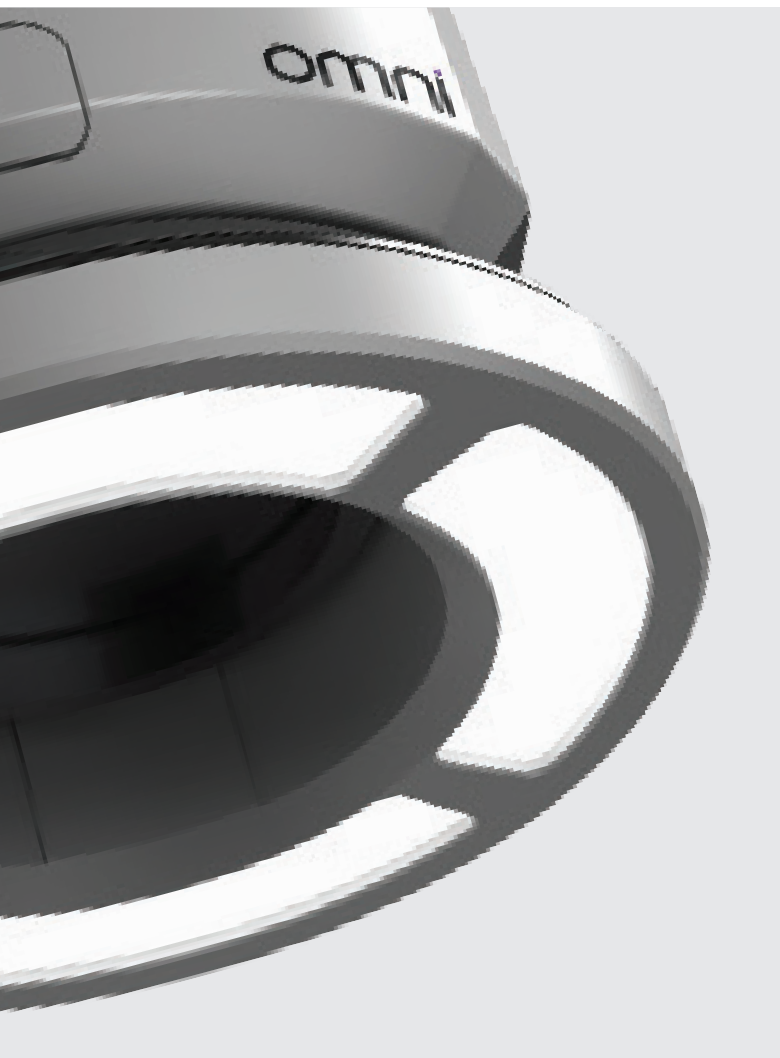
### Email

Save time by emailing directly from Omni



### Independent of PC

Integrated software avoids the expense and task of qualifying a PC



# Start with the **core** set, then add your **apps**

## Additional Apps



Up to 662x magnification



Up to 245mm x 139mm field of view



Up to 200mm working height



Side by Side Image Comparator

Visually compare your live sample image to a stored master image in the form of a split screen



Image Overlay Comparator

Identify defects by overlaying and flashing the live sample image against a stored master image



2D Measurement & Annotation

Accurate measurement and annotation of lines, angles & circles to accommodate a multitude of samples

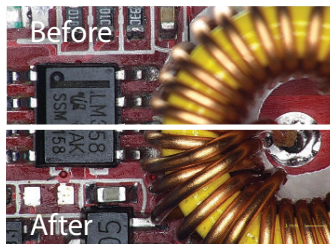
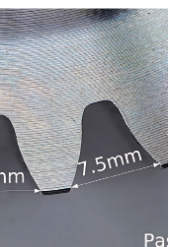
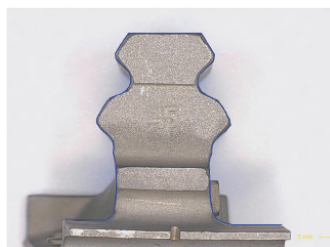


Image Stacking

Omniautomaticallycaptures several images at different focal depth to create an image based on the sharpest regions from each capture



On-Screen Digital Graticules

Create Go-No-Go on screen digital graticules to quickly identify sample defects



Import and Export DXF

Import and modify autocad DXF files to create graticules for overlay comparison with critical parts. Export DXF files generated from edge detection on parts

Jonathan Higgins, Associate R&D Engineer

Ireland

## Goodman Medical

"Working in the medical device industry I've come across many different inspection and measurement platforms, many of which are highly complicated and require constant maintenance and tech support to solve update and compatibility issues. Ash Technologies' OmniCore vision and measuring system is an all-in-one platform that provided a solution to all these issues.

It gives precision measurements and high resolution, high magnification images with a simple user-friendly interface with software applications that minimise error. The inspection applications not only make identifying defects an easy task, but also simplify and speed up operator training and measurement applications, ensuring accurate measurement every time. Software updates can be done at the click of a button with no need for IT support and additional applications can be added just as easily if required.

All in all, I would highly recommend Ash Technologies to anyone looking to simplify and improve their vision and measurement systems. I would also like to add that they have impeccable customer service which is always a plus."



Michael Mulvi, Quality Specialist

Ireland

## Conductix Wampfler

The Omni vision system we purchased from Ash Technologies has given us the ability to measure dimensions on our plastic moulded parts that we previously did not have the capability to do. In sourcing this, capability has greatly improved our ability to obtain timely approval from our customers for the new products we are constantly adding to our range.

The Image Stacking function on the Omni vision system is a feature that we have found useful. We use many bought-in high precision components on our assembly line. The Image Stacking function enables us to quickly produce high magnification photographs to highlight to our suppliers any quality issues or areas for improvement. Our suppliers greatly appreciate the precision measurement and quality of the images we can now provide them with.



Roland Rucker, Quality Engineer Optoelectronics

Germany

## Heraeus Noblelight GmbH

"Our goal was to acquire a microscope with the smallest possible surface differences between 5 and 500 microns without fatigue. Likewise, we wanted to create sharp images with the abnormalities and these surveying. The implementation of these requirements has now been confirmed in practice by our employees. What also stands out is the intuitive user interface our employees were able to use within a very short time. The support from their side for commissioning and technical questions is also to be positively emphasized. We can highly recommend this microscope because of our positive experiences and you as a partner."





omni

core

FI 805-002

## Included System Components



### LENSES

+5 Lens



### LIGHTS

LED Ring Light



### OTHERS

WirelessKeyboardandMouse

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

PolarisingLens(Analyser)

AI 100-041

Sub-StagePolarisingFilm& Analyser

AI 801-835

Sub-StagePolarisingFilm

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



### CONTROLLERS

KPII External Keypad

FI 806-002

KPIII External Keypad

FI 806-003

Touchscreen Workflow Controller

AI 100-049

WorkswithmotorizedXYstage



### 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

Motorized XY Stage

AI 100-050

Works with touchscreen workflow controller

ObliqueTiltingStage

AI 801-414

Illuminated Track Stand

AI 100-036

Track Stand

AI 100-037

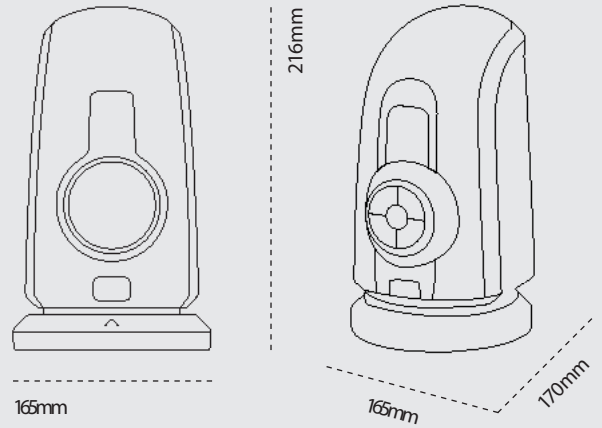
ArticulatedArmStand

AI 100-039

DualArmBoomStand

AI 100-038

# OMNI Advanced Digital Microscope and Measurement System



## Magnification

Lens Type		5	10 Plan 1x	25
Optical	Magnification Range (X)	2.2 - 65	4.3 - 131.0	171.6 - 331.0
	X-axis FOV (mm)	245.0 - 8.2	123.0 - 4.0	3.08 - 1.6
	Y-axis FOV (mm)	139.0 - 4.6	71.0 - 2.2	1.7 - 0.9
Digital	Magnification Range (X)	66d - 131.7d	132.0d - 263.9d	332d - 662.4d
	X-axis FOV (mm)	8.2 - 4.02	4.0 - 2.0	1.6 - 0.8
	Y-axis FOV (mm)	4.6 - 2.2	2.2 - 1.1	0.9 - 0.45
	Working Distance (mm)	200	76	35

## Technical Specifications

	OMNI
Zoom Range (with supplied +5 Lens)	2.2 - 131.7x
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 RJ45 Ethernet Connector (Networking)
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	1.75kg
Operating Temperature	Storage -10°C to +60°C Operating +5°C to +40°C



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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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