

Cascade

eVue IV

Digital Imaging System

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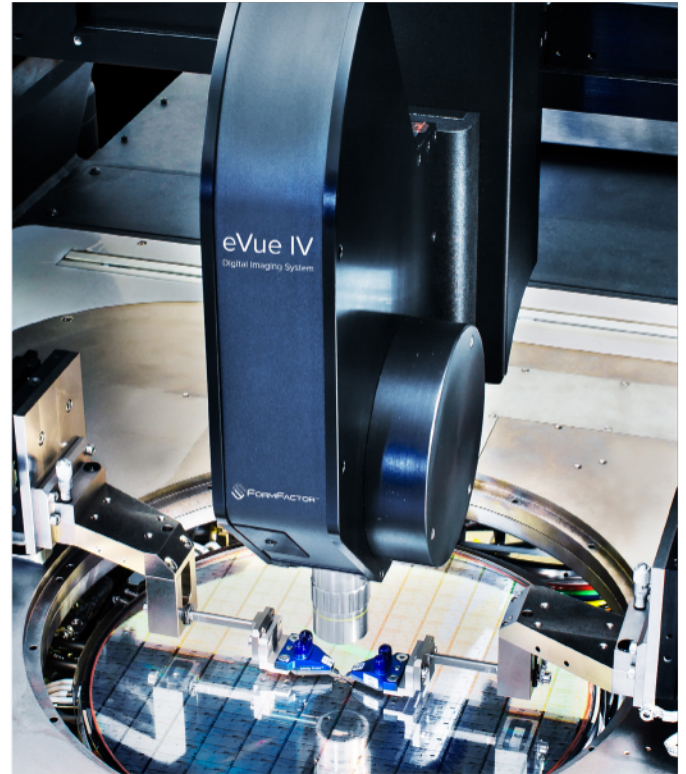
> Overview

The eVue IV digital imaging system combines extraordinary optical performance with increased productivity.

It's revolutionary multi-lens design provides the perfect balance between optical resolution, digital zoom and live motion video. The system enables to navigate, observe and measure devices faster and smarter than ever before, supporting FormFactor's unique Contact Intelligence™.

The new high-speed focus system allows faster operation, providing highly accurate measurement data in shortest time. The advanced intelligent lens mount detects involuntary mechanical contact and enhances automation safety.

The eVue IV digital microscope is the perfect addition to your Cascade Probe Station.



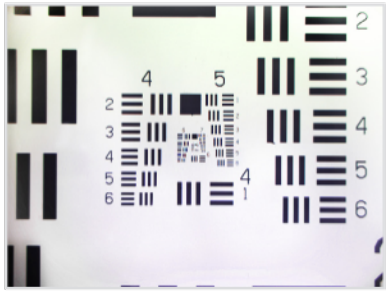
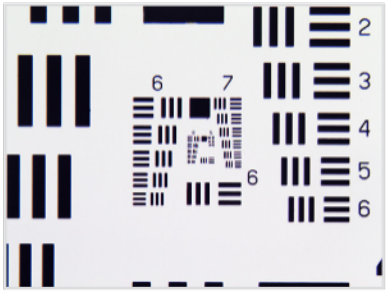
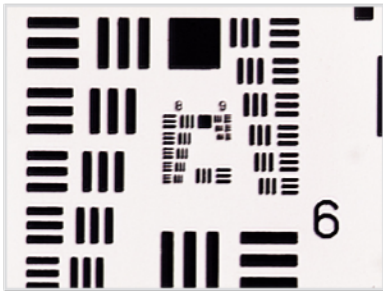
> Features / Benefits

Multi Lens Design	<ul style="list-style-type: none"> • Quick and easy probe tip navigation • Maximizes field-of-view • High magnification
Longer Focus Range	<ul style="list-style-type: none"> • Z drive can work in the same range as the chuck • Shadow-free view of the corresponding features
Intelligent Objective Lens Mount	<ul style="list-style-type: none"> • Automatically configure and optimize performance • Easy lens exchange
Advanced Design	<ul style="list-style-type: none"> • cTUVus certified and CE • Compatible with TopHat for perfect shielding • Compatible with high-voltage measurements
Extended Lifetime	<ul style="list-style-type: none"> • 24/7 operating, Increased MTBF • No internal maintenance required
Intelligent Collision Detection System	<ul style="list-style-type: none"> • Protects the measurement setup • Prevents involuntary mechanical contact between lens and probes • Stops all system motion and warns of unobserved contact

General Specification

Microscope	eVue IV 10x	eVue IV 10x Pro	eVue IV 40x	eVue IV 40x Pro
Optical paths	2	2	3	3
Z drive	N/A	Yes	N/A	Yes
Z drive range	N/A	4 mm	N/A	4 mm
Z drive resolution	0.2 μm	0.2 μm	0.2 μm	0.2 μm
Auto focus	N/A	Yes	N/A	Yes
Multi view	N/A	Yes (2 view screens)	N/A	Yes (3 view screens)
Video frame rates (1024 x 768)	45.5 fps	45.5 fps	45.5 fps	45.5 fps
Video frame rates (2048 x 1536)	N/A	13.1 fps	N/A	13.1 fps
Zoom range	0.5 - 5.0	0.5 - 5.0	0.5 - 20.0	0.5 - 20.0

Optical Path

Objective*	Camera 1 @ 0,5X Zoom		Camera 2 @ 2X Zoom		Camera 3 @ 5X Zoom	
	FOV X [mm]	FOV Y [mm]	FOV X [mm]	FOV Y [mm]	FOV X [mm]	FOV Y [mm]
2X	13.1	9.84	3.28	2.46	1.31	0.98
5X	5.24	3.94	1.31	0.98	0.52	0.39
10X	2.62	1.97	0.66	0.49	0.26	0.20
						
20X	1.31	0.98	0.33	0.25	0.13	0.1
50X	0.52	0.39	0.13	0.1	0.05	0.04

Optical Path

Objective*	N/A	Optical Resolution*** (μm)	Working Distance (mm)	Depth of Focus (μm)	FOV max X,Y (mm) @ 0.5X zoom	FOV min**** X,Y (mm) @ 20X Zoom
2X	0.05	5.0	34	91.0	13.10 x 9.84	0.33 x 0.25
5X	0.14	2.0	34	14.0	5.24 x 3.94	0.13 x 0.09
10X	0.28	1.0	33.5	3.5	2.62 x 1.97	0.07 x 0.05
20X	0.42	0.7	20	1.6	1.31 x 0.98	0.03 x 0.02
50X	0.55	0.5	13	0.9	0.52 x 0.39	0.01 x 0.01

* Mitutoyo M Plan APO. 5X objective is part of standard delivery

** Test structure USAF1951

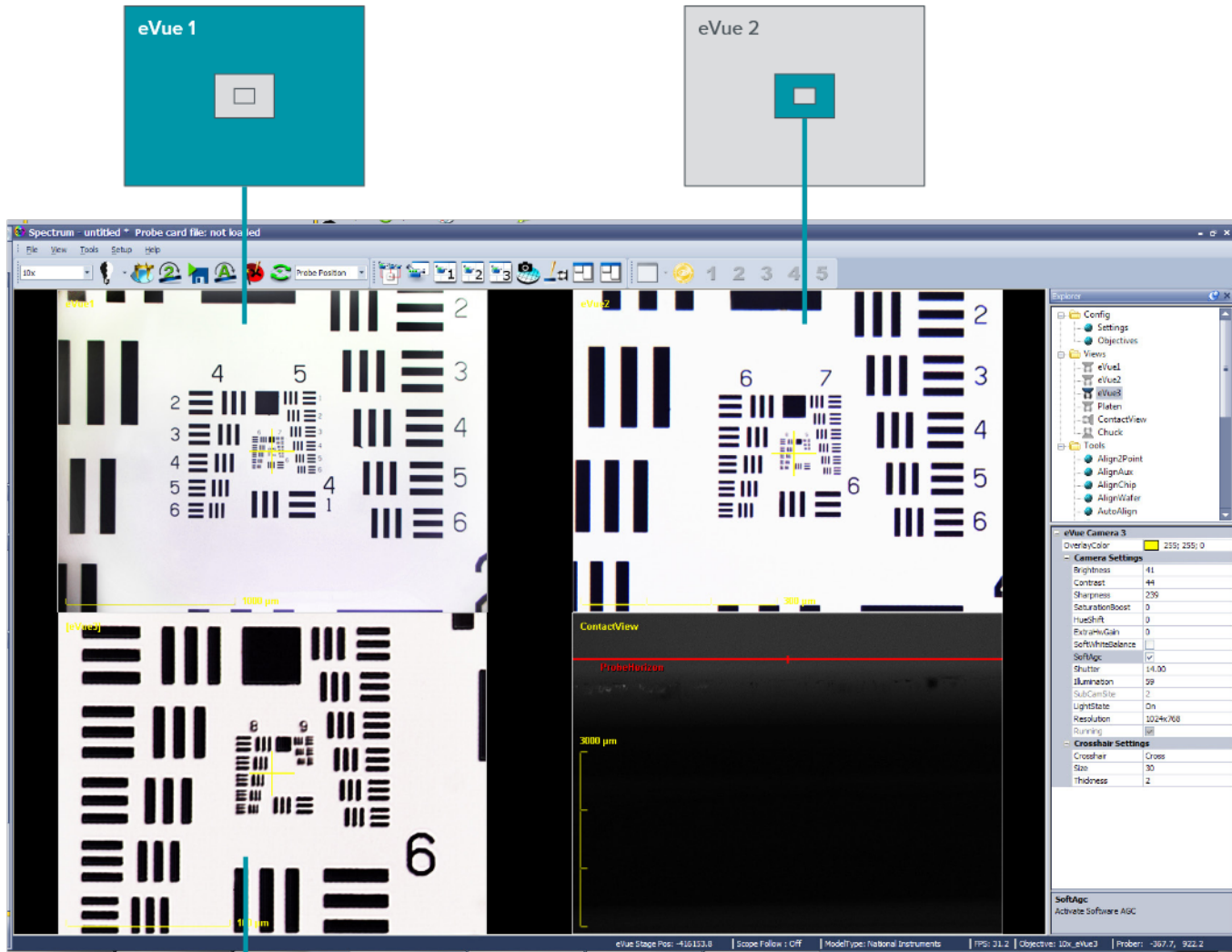
*** Optical resolution and focal depth based on reference wavelength of 550 nm

**** Minimum FOV listed is for eVue 40X models. For eVue 10X models, the minimum FOV is approximately 1/10 of the maximum FOV shown.

Multi-Camera Imaging

The eVue IV is synchronized with the powerful Velox™ probe station control software. This enables a fast and convenient operation. Accurate probe tip placement is made easy with the unique MultiView Mode which enables up to four simultaneous live views:

- / Single view
- / Single view with magnifier
- / Picture-in-Picture view (PIP)*
- / Dual view*
- / Quad view (3 camera visualizer with pan and zoom)*
- / Vertical / horizontal views for enhanced probe and/or wafer safety*



MultiView Mode of eVue 40x Pro version

EVUE-DS-0918

> Other

Certification	cTUVus certified to UL61010-1 & CAN/CSA No. 61010-1 CE Compliant to EN61010-1 & IEC61010-1 VCCI CISPR32 Class A, FCC part 15 Class A, IEES-003 Class A, EN61326-1 Class A, & KN61326-1 Class A compliant
	Emission tests are performed for all the following voltages and frequencies: * Japan 100Vac/50Hz * Taiwan 110Vac/60Hz and 220Vac/60Hz * US and Canada 115/60Hz * Korea 220Vac/60Hz * Europe 230Vac/50Hz * inquire regarding additional countries
Weight	3.72 kg (8.2 lbs) without focus block
Illumination system	LED (solid state, long life) illumination system
Recommended objectives lenses	Mitutoyo M Plan APO: 2X; 5X; 10X; 20X Mitutoyo M Plan APO SL: 50X
Computer requirements	Requires FormFactor-specified computer and software to run

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