Setting the pace
in digital visualization

ZEISS ARTEVO 850
The ultimate digital companion

Introducing the ARTEVO® 850 from ZEISS, a 3D digital microscope designed for multiple specialties in ophthalmology, that is setting the pace in digital visualization capabilities.

At ZEISS we are confident that the future is digital, and we are committed to shaping the future of ophthalmology. We believe both in digital visualization and in leveraging the potential of connected devices and applications to streamline workflows and efficiency.

Working at the forefront of ophthalmic surgery involves complex cases with new challenges and unique scenarios. Tackling that complexity, demands an advanced surgical microscope, that gives you a variety of visualization options and a smooth surgical workflow.

ZEISS ARTEVO 850 rises to that challenge by combining the proven benefits of a digital ophthalmic microscope with customizable 3D visualization, functional integration, excellent usability, and integration into a medical ecosystem.

✓ Customizable 3D digital visualization

✓ Integration following your efficiency demands

✓ Intuitive navigation and productivity

Customizable 3D digital visualization

Experience advanced 3D digital visualization with ZEISS ARTEVO 850. With true color representation thanks to the HDR monitor and 2× 4K 3-Chip cameras, the surgical image is displayed in high fidelity on the 55" screen. Enhance colors in the surgical image using the Digital Color Assistant to accentuate anatomical details. Optimize the depth of field or even boost it by 60%* using the new Smart DoF function.

Natural Color Representation
With a high dynamic range (HDR) monitor, more than 1 billion colors are used to represent the surgical field in natural colors, while oversaturation of the 3D image is avoided. With Dynamic Enhancement, dark and bright areas can be visualized clearly, at the same time.

Hybrid Mode
With Hybrid Mode, you can switch intra-operatively between 3D visualization and viewing the surgical field through real optical oculars. While you use the oculars, your OR team can continue to view the live image in 3D on the large 55" monitor.

Digital Color Assistant
The Digital Color Assistant (DCA) supports visualization of the surgical field with a digital color coding at a click to accentuate anatomical details. Select from preset color configurations optimized for specific procedures, or choose your own customized digital color setting according to your surgical needs.
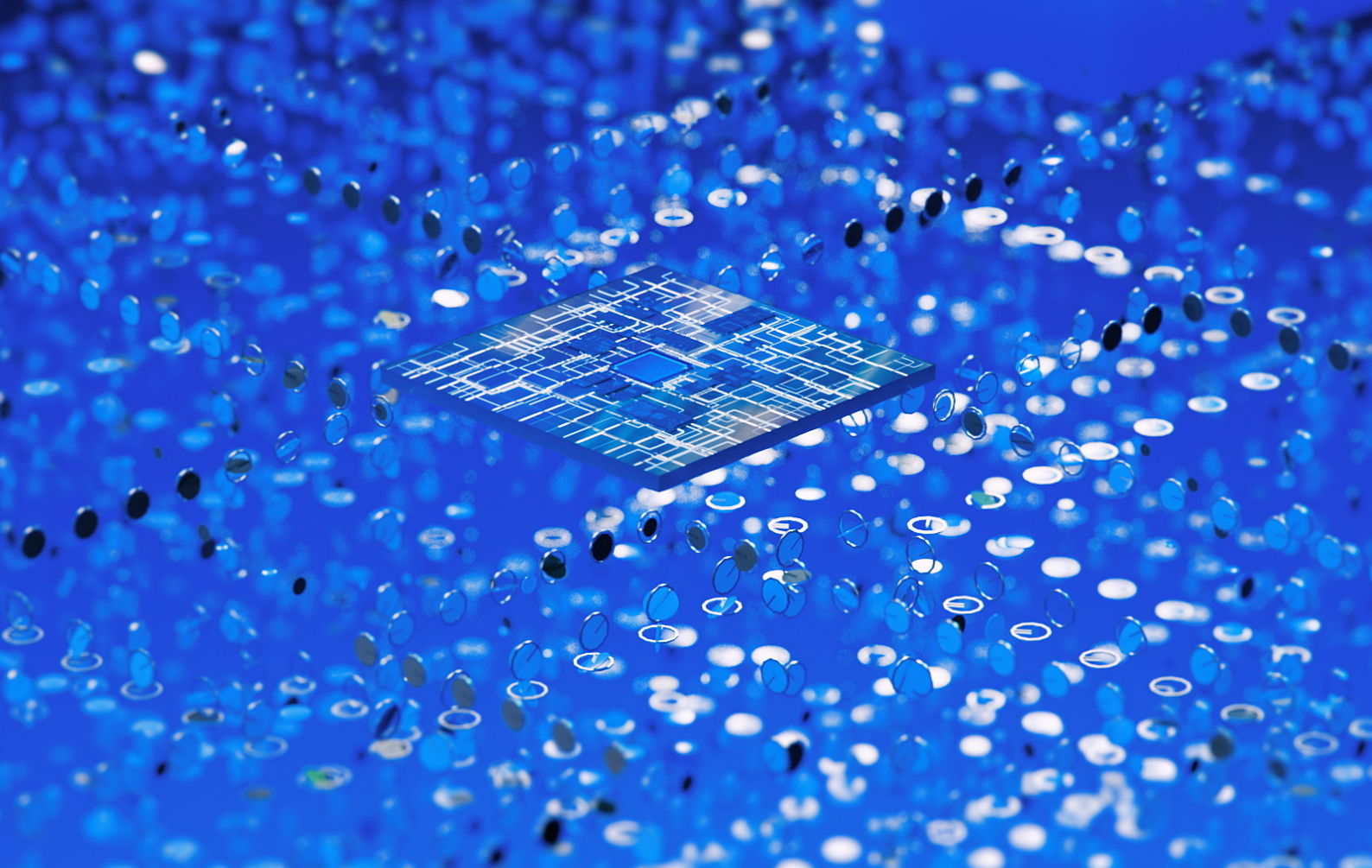
Smart Depth of Field
Leverage the expanded depth of field available with the new Smart DoF (Depth of Field) setting. With a single control, adjust the depth of field* – from low, to medium, to high – or use the maximum setting to reach a boost of +60% more depth of field. The brightness in your digital view is automatically maintained without the need to increase illumination intensity from low to high.

RGB LED Illumination
RGB LED illumination allows you to select different light color temperatures according to your preferences to illuminate the surgical field as needed. Tailor the light to your preferences, or let it adjust automatically according to your pre-set surgical profile.

* Data on file. Compared to ZEISS ARTEVO 800.

Intuitive navigation and productivity

ZEISS ARTEVO 850 features a redesigned ZEISS CALLISTO eye user interface that centralizes all controls on a single intuitive touchscreen.

Cataract assistance functions and other key controls can be surgeon-controlled with a push of a button on either the foot control panel or handgrips if the buttons are configured for this purpose.

Integration following your efficiency demands

ZEISS ARTEVO 850 offers functional integration of devices and visualization technology to streamline clinical procedures.

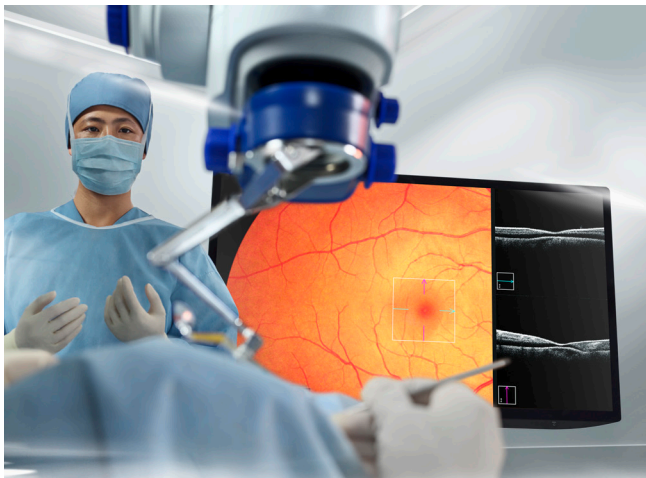Digital integration into the ZEISS Ophthalmic Workflows allow for seamless data transfer.

Confidence in decision-making
in vitreoretinal surgery

Observe surgical maneuvers in retinal tissue

Integrated intraoperative OCT adds a real-time dimension for viewing transparent structures of the eye during surgery, allowing for monitoring of the surgical process and decision-making. Benefit from clear visualization of ocular structures and devices during implant placement.

OCT Features at a glance

Double resolution
OCT images are optionally displayed in double depth resolution in the surgeon's view to better visualize small details.
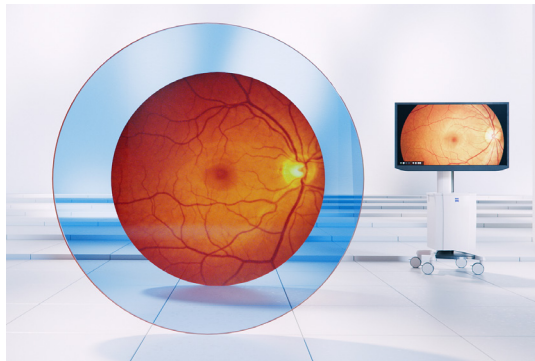
Live viewing
OCT images are visualized live in the surgeon's view to support observations of moving ocular structures.

Automated OCT image acquisition
With a push of a button, the OCT signal is automatically searched for by AutoZ.

Accentuate anatomical details

The Digital Color Assistant (DCA) supports visualization of the surgical field with a digital color coding at a click to accentuate anatomical details. Select from preset color configurations optimized for specific procedures, or choose your own customized digital color setting according to your surgical needs. Preset DCA configurations include bluish color coding.

RedColorBoost enhances visibility of the red color spectrum without biasing blue and green elements.
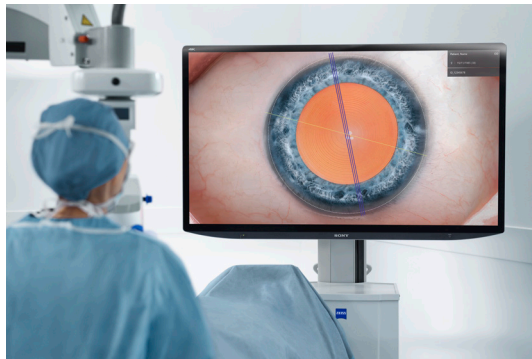
Reduce manual interactions in your workflow

Designed to follow your workflow, AutoAdjust® automatically adjusts settings without additional interaction – for example, when switching intraoperatively between anterior and posterior surgery mode.

Stay ahead of the curve
in cataract surgery

Leverage digital workflow integration

Digital integration of ZEISS ARTEVO 850 into the ZEISS Premium Cataract Workflow allows pre-operative data to be imported seamlessly from ZEISS IOLMaster 700 and ZEISS EQ Workplace**. After surgery, you can view, analyze and share cases with ZEISS Surgery Optimizer featuring AI-based video segmentation.

The ZEISS Premium Cataract Workflow enables you to boost your clinical and commercial success with cutting-edge technology. Take your refractive outcomes, your workflow, and your patients' experience to the next level.

Facilitate surgery preparation and data management

Streamline your OR workflow with the intuitive cockpit of the new ZEISS CALLISTO eye®: a central point of control that gives you access to patient management, cataract assistance functions such as markerless toric IOL alignment, and device settings via one simplified user interface.

CALLISTO eye at a glance

Redesigned graphical user interface
The ZEISS CALLISTO eye cockpit features a redesigned graphical user interface that is intuitive and easy to use.

Surgeon-controlled assistance functions
The assistance functions can be completely surgeon-controlled with a push of a button on either the foot control panel or the handgrips.

Experience leading-edge visualization

Three-dimensional visualization supports the understanding of surgical dynamics and perception of depth.

With the Smart DoF setting in ZEISS ARTEVO 850, you can adjust the depth of field while maintaining the digital view's brightness level and reach a boost of up to +60% more depth of field*.

Working heads-up enables you to sit up straight and reduce physical discomfort. Even during long days in surgery, you can stay relaxed and focused – benefiting from the freedom of movement.

 * Data on file. Compared to ZEISS ARTEVO 800.
** ZEISS VERACITY Surgery Planner for US and Canada.

Share your knowledge

Students can view the same images and information on the 3D screen that you see while treating patients. Provide guidance as they perform surgery using the same visualization or lead each student through surgery and offer precise instruction at every step.

Engage the next generation of ophthalmologists with advanced technology that matches today's capabilities of digital visualization.
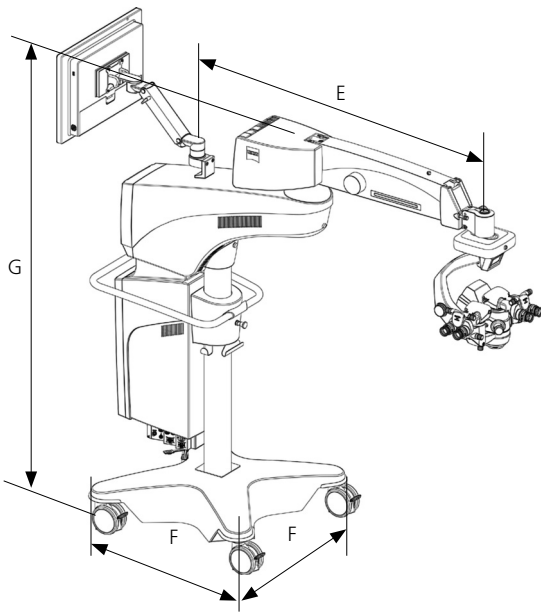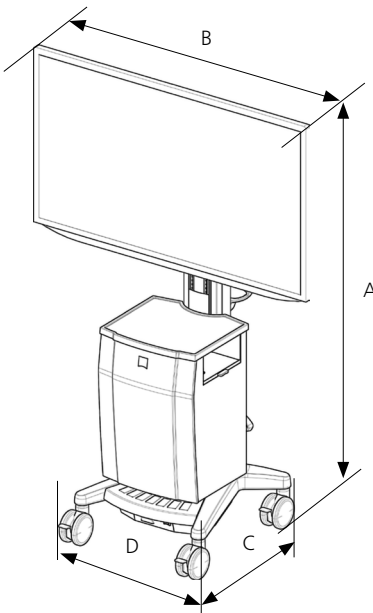
Technical data

ZEISS ARTEVO 850

Visualization	4K HDR 55" 3D monitor
	2× 3-Chip 4K Cameras
	Digital and hybrid mode
	AdVision® augmented overlays: cataract assistance functions, phaco values (ZEISS QUATERA 700), OCT optionally
Surgical microscope	Smart DoF and DeepView to adjust depth of field
	Digital Color Assistant (DCA): preset bluish color codings and custom
	Magnification 3,5× - 21× (with objective lens f=200 and eyepiece 10×)
	Focus range: 70mm; FastFocus available
	Integrated electronic assistant scope (option)
	Integrated keratoscope ring (option)
Illumination	Stereo Coaxial Illumination (SCI)
	RGB LED (adjustable light color temperature 3000K-6000K) or Xenon Superlux Eye
	Optional filters available
Slit illumination	Integrated slit illuminator Slit widths: 0.2 mm, 2 mm, 3 mm, 4 mm Slit height: 12 mm
	Second light source option for motorized external slit illuminator VISULUX

ZEISS Intraoperative OCT

Scan parameters	A-Scan depth: 2.9 and 5.8 mm in tissue Scan length adjustable 3 – 16 mm Different scan modes for live and capture acquisition Scan-location or side-aligned B-scans
	Scale indicator
	Automatic noise reduction on/off
	AutoZ
	Z tracking and XY tracking

ZEISS RESIGHT family

Fundus viewing systems	ZEISS RESIGHT 700 AutoAdjust® for automatic anterior/posterior profile switching
Lenses available	60D and 128D (reusable)
	MACULA LENS, ULTRA WIDE-ANGLE LENS, WIDE-ANGLE LENS (single-use)

ZEISS CALLISTO eye

Software	Version 5.0
Hardware	Panel PC III
Recording	Integrated high quality MPEG 1080p 60/50 fps video recording, including AdVision overlays

Measurements

Monitor	Total height (A) 1821 mm
	Monitor width (B) 1250 mm
	Monitor cart length (C) 721 mm
	Monitor cart width (D) 621 mm
Microscope	Swivel arm length (E) 1343 mm
	Microscope footprint (F) 805 mm
	Total height (G) 1880 mm

CE

ARTEVO 750/850
RESIGHT 700
CALLISTO eye Panel PC

CE 0297

RESCAN 700
CALLISTO eye Software

◣ **Carl Zeiss Meditec AG**
Goeschwitzer Strasse 51–52
07745 Jena
Germany
www.zeiss.com/artevo850
www.zeiss.com/med/contacts