

UNCONSTRAINED PERFORMANCE™

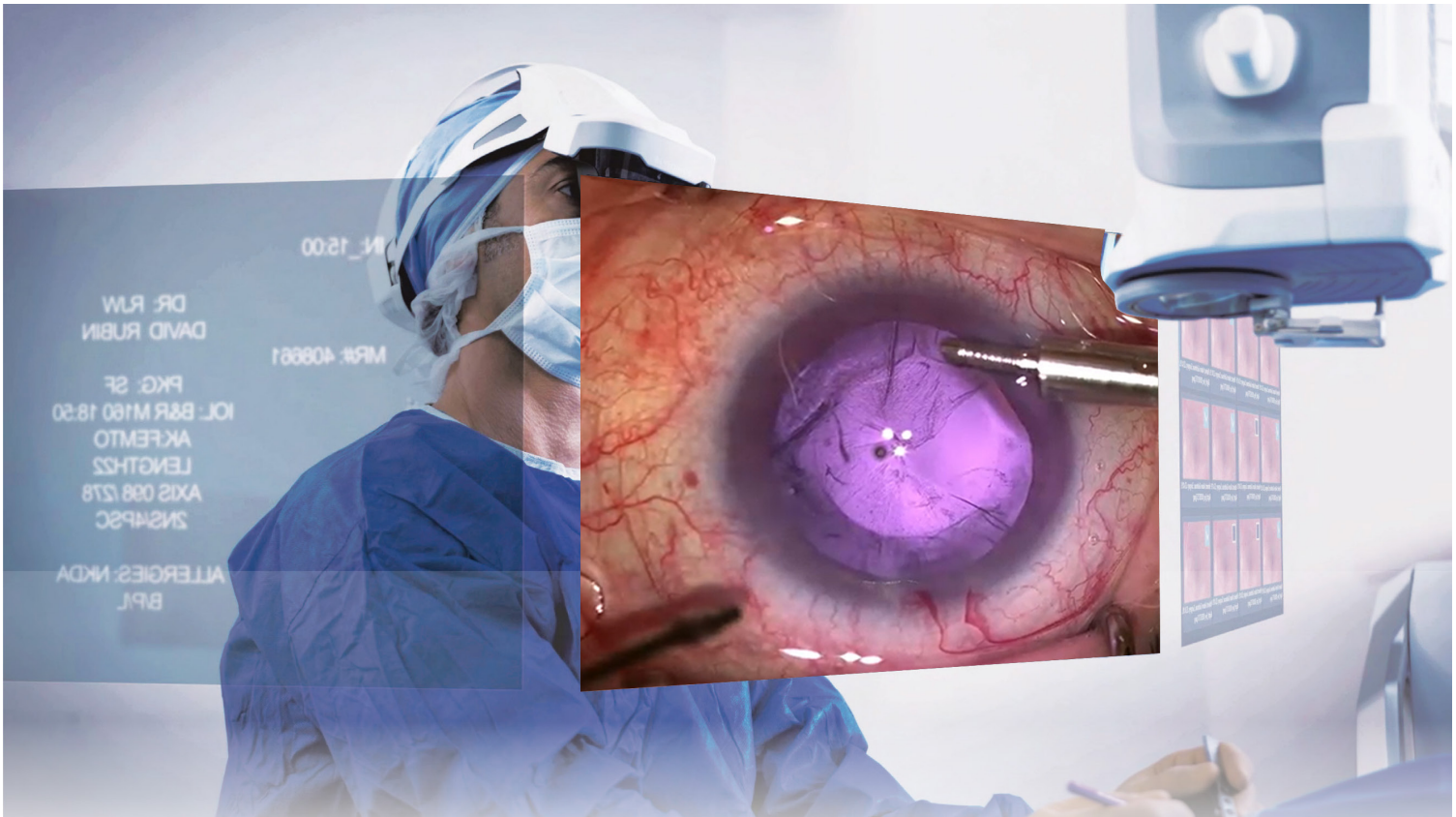


Beyeonics One®

The first digital microscope with a high-resolution 3D surgical visualization headset featuring **IR technology**.

Beyeonics One is a class I FDA listed visualization system

BEYEONICS
VISION



The ophthalmic digital microscope

Beyeonics One is a fully digital microscope equipped with an Immersive, high-resolution 3D surgical visualization headset. Designed for anterior and posterior segment surgeries. With Invisible Light (infrared) technology, it provides surgeons with visibility beyond the traditional spectrum, enhancing precision even in the most complex cases.

Inspired by pilots' head control units, our microscope leverages advanced technologies developed by a leading global corporation and applies it to innovate the ophthalmic domain.



“ Beyeonics One digital microscope is a catalyst for unforeseen advancements in surgery, marking a leap forward in technology and surgeon experience. ”

Jorge Calzada, Owner and Medical Director of Deep Blue Retina, Memphis, TN

Unconstrained Performance™



Unconstrained **visualization**

The fully digital optics design provides high magnification, clear, detailed image of the surgical field. Customizable -surgeon filter selection enables **enhanced tissue and membrane contrast**.



Unconstrained **movement**

The augmented reality surgical headset brings the surgical field right in front of the surgeon. The ergonomic-friendly design allows for adaptation of a more natural posture, demonstrated to **increase surgeon productivity and professional longevity**.



Unconstrained **workflow**

Zero perceived image latency and intuitive head gesture control allow the surgeon to maintain a continuous view of the surgical field **without sacrificing hand-eye coordination**.

“Visualizing the surgical field through the AR headset removes the problem of vertical spine tethering typical of conventional microscopy, or angular neck tethering that is a shortcoming of external screen-based digital microscopy systems.”

Jorge A. Fortun, MD, Associate Professor of Clinical Ophthalmology; Medical Director, Bascom Palmer Eye Institute at Palm Beach Gardens, Florida

The AR surgical headset

Lightweight and adjustable, the AR Surgical headset display provides full control over system parameters. Head gestures are used seamlessly to control frequent functions such as **focus, zoom, pan** and **illumination** and are also used to toggle through various overlays.



A meaningful teaching and learning experience is enabled by the ability to connect up to **2 surgical headsets** simultaneously, with a shared surgeon's view, available in **180° or 90°** options, and an additional guidance feature.



Beyeonics One® is a class I FDA listed visualization system.

Stereoscopic camera head unit

The 270+ degree rotatable camera head is equipped with two >8K resolution, low noise cameras producing sharp and clear images, and a LED-based illumination system

Motorized arm

Allows maneuvering and smooth XYZ positioning adjustment. With extended reach, the system can be placed away further from the surgical field improving OR setup.

User interface

A 24" rotating touch screen with controls provides a clear image display of the surgeon's view to the OR team, enabling full engagement of the staff. The image may also be streamed to an external monitor.

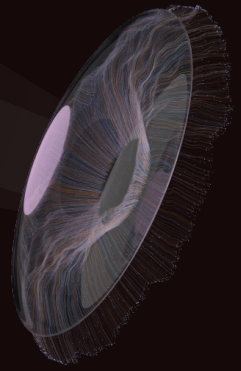
The Beyeonics One® console

Real-time video processing and data management.

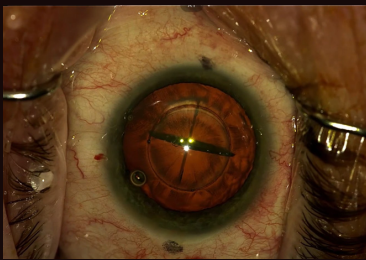


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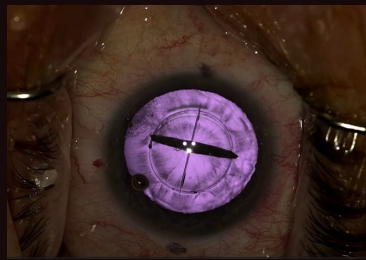
Invisible Light



Our next-generation digital microscope is designed for the future of ophthalmic surgery, tailored for the most demanding procedures. Harnessing the power of infrared (IR) illumination, Beyeonics One Invisible Light delivers enhanced precision and clarity during eye surgeries, enabling surgeons to see beyond the visible spectrum while minimizing exposure to traditional light sources.



Standard Illumination



Standard Illumination & BeyeonicsOne Invisible Light (IR)



Full IR Illumination with BeyeonicsOne Invisible Light

Advantages of Invisible Light for You and Your Patients

- + Improvement in:**
 - Clarity
 - Detail
 - Contrast
 - Brightness
- + IR penetrates better hemorrhage, cloudy cornea, and dense lenses**
- + Potentially improving patients experience and recovery time**

"Using Beyeonics One for cataract surgery with minimal coax lighting and primarily infrared is a game changer - I felt like I had x-ray vision! Patients are more comfortable, and I believe they will experience faster visual recovery."

Dr. Robert Weinstock



Scan the QR code
to learn more about
Beyeonics One

Dimensions and weight

Item	Specification
Height	Up to 2.6 m Stow 1.93 m Camera Head Unit minimal height from floor 0.9 m
Dimensions (in stow position)	193 x 92 x 112 (h x w x l)
Base Footprint	82 x 82 cm
Total Weight	350 kg / 771.6 lbs

Video output

Item	Specification
Output	2 x HDMI (1080p) video 1 x HDMI PC screen out

Recording

Item	Specification
Channels	Left and Right HD (1920x1080)
Compression	H265/H264
Capacity	2 TB

Visualization

Item	Specification
Working distance	200 - 350 mm
Field of Vision	40 – 80 mm x 21 – 42 mm [HxV]
IRIS	Electronic
Camera	2 x 65 Mega Pixel
Filter	532 nm optical filter for endolaser (optional)
Illumination	Stereo-Coaxial Illuminator 4000K* white Light Emitting Diode (LED)

Surgical Headset

Item	Specification
Visor transparency	See-Through / Blocked (Electronic switchable)
Display	Equivalent to a 4K 3D 55" OLED display at a distance of 1.5 meters
IPD Range	55-73 mm

“Beyeonics One® offers something completely unique from other heads up systems—a well-balanced headset that puts you seemingly inside the eye with the freedom of head movement while keeping the field of view right in front of you.”

Dr. Jonathon Solomon, MD, Solomon Eye Physicians & Surgeons, Bowie, MD

Warnings and Risks:

Beyeonics One is intended for use by professionals trained users.

Please review and comprehend the Beyeonics One operator manual to ensure proper usage and awareness of potential risks Rx ONLY

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