

Performance and Reliability That Has Earned the Trust of Leading Surgeons

For years, innovative VuMax™ technology has helped leading ophthalmic surgeons achieve a heightened new level of diagnostic capability both pre- and post-operatively.

“The VuMax™ Ultrasound Bio-microscope... has been a valuable addition to my practice. Being able to see beyond the surface of the cornea and displaying the entire anterior segment in one scan has become a critical tool in the diagnosis and management of various ocular pathology in our practice”

Roxana Ursea, MD

“For glaucoma patients, we use the VuMax to evaluate not only the angle, but also what’s causing the patient’s borderline or narrow closed angles. We can determine if pupil block, plateau iris, lens surgery, and/or lens intumescence play a role. For IOL patients, we can assess what’s going on in the capsular bag, obtain the dimensions of the sulcus, and understand the capsular bag morphology, which helps us choose a lens and identify potential issues.”

Ike K. Ahmed, MD, FRCS

“The VuMax™ has changed the way that I evaluate all lens-based surgery. The ability to image the entire anterior segment allows me to accurately choose appropriate-length phakic IOLs, as well as better understand postoperative dysphotopsias. The ability to image the capsular bag may be an important finding when choosing an accommodative or multifocal IOL in the future.”

Robert P. Riviera, MD



The VuMax UBM

Achieve a superior new perspective with high-resolution, high-frequency ultrasound from VuMax™

The VuMax™ Ultrasonic Bio-Microscope takes you to another level of image quality and accuracy in high-resolution, high-frequency ultrasound. This innovative system provides incomparably clear and extremely accurate images of the anterior segment of the eye—faster and more easily than ever—to support your diagnostics, pre- and postoperative decision-making, and patient-monitoring needs at the highest levels of performance and reliability.

Moreover, the VuMax™ is a proven economic performer, providing the ability to image the entire anterior segment (as compared to other imaging technologies such as OCT) and offering these features and options:

- Handpiece with 35 MHz and/or 50 MHz Transducer(s) [50 MHz Optional]
- Scan Cap Kit (4 different sizes)
- JPEG/AVI Saving Function
- Post-Processing Tools (Ruler, Caliper, Area)
- Image-Enhancing “Focus” Software
- USB Video Printer
- Pro 2000 Angle Analysis Software
- Gooseneck Gantry Arm With Probe Holder

Enhance your practice with the advantages of VuMax™

To learn more about how the VuMax can enhance your practice by supporting your diagnostics, decision-making, and patient-monitoring needs at the highest levels of performance and reliability, visit www.sonomedescalon.com or contact your local Sonomed Escalon distributor.

Specifications

HF35-50

Type	Motor-driven, compact interchangeable transducer
Transducer Frequency	35 MHz and/or 50 MHz
Scanning Method	Variable field sector scanner
Sector Angle	38° or 20° fields
Scanning Speed	Variable 12.5 frames per second (fps)
Observable Range (Variable)	18.5 mm W x 14mm D in 38° field 12.0 mm W x 14mm D in 20° field
Display	Dual screen simultaneous display with live zoom and standard screen display

Electronic Resolution

In 38° Field	Axial 0.027 mm Lateral 0.035 mm
In 20° Field	Axial 0.027 mm Lateral 0.023 mm

Acoustic Axial Resolution

35 MHz Transducer	0.068 mm
50 MHz Transducer	0.050 mm
Gain Curves	Logarithmic with user-selectable window (contrast) and level (brightness) control

Measurements

Distance Measurements	Angle-to-angle, sulcus-to-sulcus, corneal thickness, and scleral thickness
Anterior Segment Biometry	Single measurement of cornea thickness, anterior chamber depth (ACD), and lens thickness A-scan profile with two markers/dual caliper measurements Angle in degrees

Dynamic Recording

Scan Time	45 seconds (depending on RAM)
Recording Frame Rate	12.5 or 25 fps

Electrical

Voltage	90-240 VAC
Frequency	50/60 Hz
Maximum Current	6.5 A (low-voltage range) or 3.5 A (high-voltage range)



VuMax™ UBM

See Beyond to a New Level of Clarity and Accuracy



MERCOFRAMES OPTICAL CORP

5555 Nw 74 Ave. Miami, FL 33166. 305-882-0120
ale@mercoframes.net www.mercoframes.net

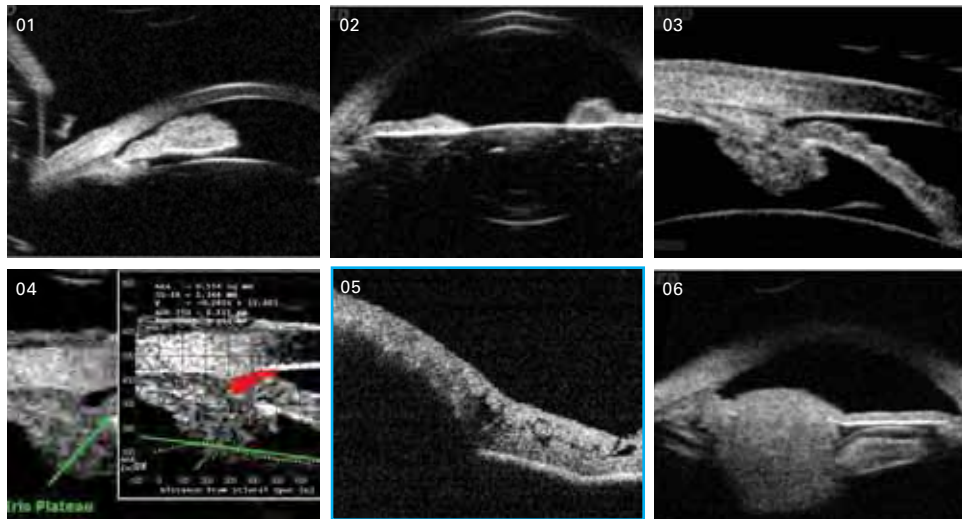
Glaucoma Management

Through unmatched resolution of the different structures of the anterior chamber, the VuMax™ provides an excellent diagnostic tool for glaucoma-related concerns.

Perform full objective assessment of the angle using Pro 2000 (Ishikawa) nonogram, including detail regarding the angle recess area (ARA), the sclera spur to iris root distance, and the angle opening distance at 250 and 500 microns.

Clearly visualize and evaluate behind-the-iris pathology, such as tumors and cysts; irregular iris pathology, such as iris plateau; and phacomorphic changes in the crystalline lens.

Evaluate surgical treatments, such as trabeculectomy, iridotomy, tubes, shunts, and viscocanalostomy.



- 01. Diagnose and Measure Tumors
- 02. Image Cysts
- 03. Iris Plateau
- 04. Iris Plateau with Pro 2000
- 05. OCT Image of Iris Tumor (tumor not fully visible)
- 06. VuMax Image of Same Tumor (showing its full pathology)

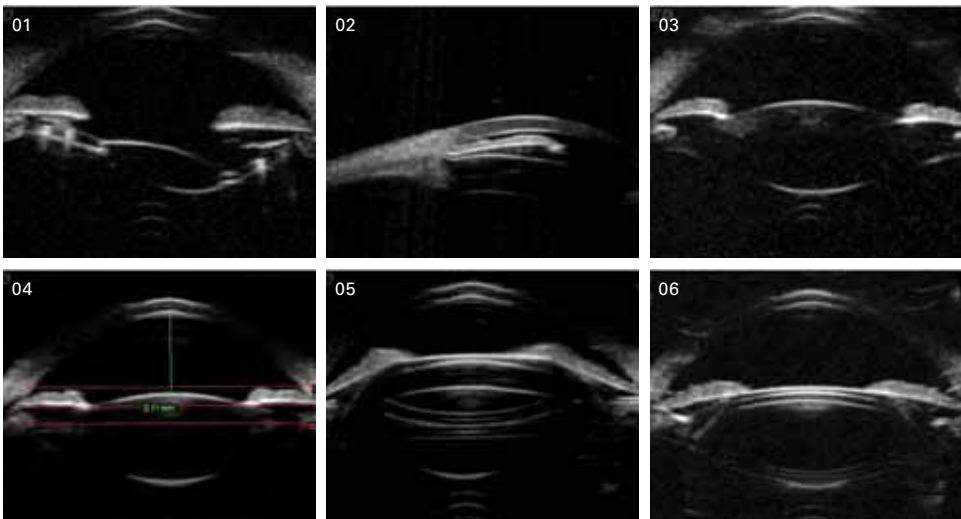
Cataract and Refractive Applications

The VuMax™ plays a critical role in the pre- and post-operative evaluation of lens implantation procedures for cataract and refractive applications.

Assists in determination of lens type, length, and design by providing high detail imagery of the sulcus-to-sulcus distance (posterior chamber phakic IOLs), the angle-to-angle distance (anterior chamber phakic IOLs), capsular bag dimensions (effective lens position), and ciliary body size and shape (accommodating IOLs).

Supports critical decision-making by providing a clear visualization of the entire anterior segment, including the ability to capture dynamic motion such as accommodation.

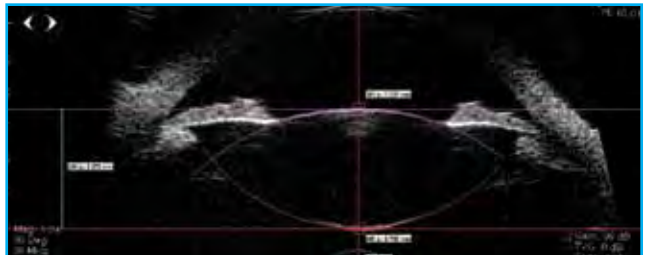
Visualize lens position and interaction with the different structures of the anterior segment post-operatively to assist with diagnosis and treatment of tilted and dislocated lenses.



- 01. Diagnose Dislocated IOLs
- 02. Angle Closure from Oversized Phakic IOL
- 03. Identify and Measure Capsular Bag Dimensions
- 04. Measure Anatomical Distances for Proper Lens Selection
- 05. Diagnose Post-Operative Complications (oversized phakic IOL shown here)
- 06. Prediction of Accurate Lens Sizing

Perform Evaluations with Ease and Flexibility – Virtually Anywhere

With the VuMax™, non-invasive evaluations can be performed virtually anywhere. It comes with a lightweight, hand-held probe and three custom-made immersion cups to ensure a comfortable fit and ease of use. VuMax’s versatility allows for immersion as well as non-immersion techniques. Utilizing the Scan Cap Kit or ClearScan® device, critical information may be obtained in every circumstance.

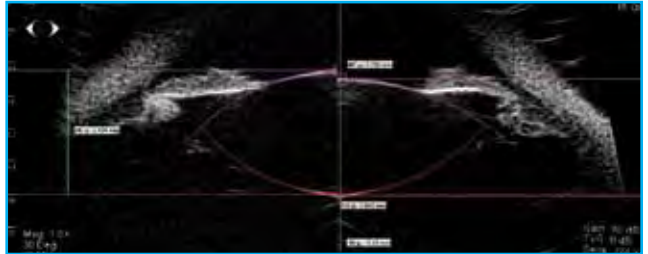


Radius of Curvature Overlay

Breakthrough Technology Lets You See Clearer, Sharper Images Than Ever Before

The VuMax™ provides the ability to image dynamic motion within the anterior chamber, including accommodation. Eye modeling is achieved with the radius of curvature overlay tools.

Powerful processing tools and proprietary image-enhancing preset software configurations achieve the best image for the anatomical structure being examined.



Accommodation / Disaccommodation