## Simply the Best



# VuMAX HD

B-Scan | UBM | A-Scan





Hands down the gold standard in ophthalmic ultrasound. Configurable as a B-scan, UBM, or combination system with optional A-scan, the VuMAX HD is cutting edge technology providing unparalleled image quality with elegant and powerful usability. Yes, simply the best.

## UNPARALLELED **UBM** Image Quality.

The  $VuMAX^{m}$  series from Sonomed Escalon has long been the gold standard in UBM imaging. Now with Enhanced Focus Rendering<sup>m</sup> and other enhancements, the  $VuMAX^{m}$  HD delivers the most outstanding UBM images and video clips of the entire anterior chamber.



The specialized angle detail scan setting optimizes resolution of different structures at the angle and behind the iris, providing the premier diagnostic tool for identifying causes of glaucoma-related concerns, including angle detail and permeability of the trabecular meshwork, plateau iris syndrome, effects of pupil movement on the angle, and other aspects of glaucoma.



The sophisticated angle analysis tool is a unique feature to help image, identify, and objectively quantify the angle, useful in managing patients with narrow angles. Pattern recognition software automatically identifies the iris root based on scleral spur reference to accurately determine the angle anatomy.



Accurately measure sulcus-to-sulcus to properly and confidently size ICLs to prevent post-operative surprises. The specialized sulcus-to-sulcus scan setting is optimally engineered to enable consistent viewing of key anatomical landmarks required to ensure accurate sulcus-to-sulcus measurements. Utilize the proprietary eye tracking tool to confirm image alignment and apply built-in nomograms to determine proper ICL sizing.



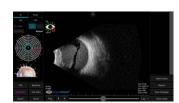
View the entire anterior segment in great detail, with optimized scan settings of the VuMAX™ HD. Clearly visualize the ciliary body, pars plana, and other structures and identify tumors, cysts, trauma, uveitis, and other pathologies. The VuMAX™ HD even allows for visualization and video capture of dynamic accommodation.



### UNPARALLELED **B-Scan** Image Quality.

The all-new B-scan mode of the VuMAX™ HD produces truly outstanding imaging of the posterior segment that has become the new gold standard in ophthalmic ultrasound.

Easily visualize extraordinary fine details within video clips and still images generated using proprietary Enhanced Focus Rendering™, providing image quality unmatched by other imaging systems.



Select from four (4) preset scan modes to optimize image quality in area of interest, including orbit, vitreous body, retina surface, and deep retina / choroid.



### UNPARALLELED. Period.

Elegant user interface provides useful tools that are intuitive, simple, and efficient to use. Time-saving features such as selectable patient database display to easily search and access archived exam records. Document scan orientation with the single click of a button. Replay videos in real-time, slow motion, or frame-by-frame. Super-impose A-scan trace, perform linear and angle measurements, and annotate onto B-scan and UBM images. Auto calculation of axial length average and standard deviation, nine IOL formulas, and lens database for biometric A-scan.

Integrated enterprise-level computer hardware with two large RAID-configured SATA 1 TB enterprise class hard drives for data storage and separate SATA SSD solid-state drive for operating system. Large 21" ultra HD monitor (1920 x 1080 pixel).

Wireless keyboard and mouse interface. Easy interface with image management and EMR systems.

Simply the best.

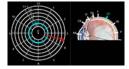
Ultrasound Probes	<ul> <li>Sealed 12 MHz or 20 MHz B-probes with focused transducers</li> <li>Water path probe with 35 MHz or 50 MHz transducers</li> </ul>
Scan Settings	Selectable scan setting profiles to optimize image quality     UBM: sulcus-to-sulcus, angle detail, high resolution, and motion picture     B-Scan: orbit, vitreous body, retina surface, and deep retina / choroid
UBM Imaging Feature	<ul> <li>Eye Tracking feature for alignment of sulcus-to-sulcus measurement for ICL sizing</li> <li>Angle Analysis feature for quantitative assessment of angle</li> </ul>
Scan Sampling	256 ray scan with 2048 sample points for each ray (over half-million sample points per tranducer sweep)
Scan Controls	• Fully adjustable time-varied gain (TVG), baseline, log gain, and exponential gain (e-gain)
Scan Position Indicator	One-click selection of axial or longitudinal scan clock position with eye model confirmation Free-form text for scan position details that automatically annotate onto images and video clips
Video Clips	Capture and store 50-frame video clips at up to 20 frames per second (fps) Replay in real-time, scalable slow motion, or one frame at a time Store up to 12 video clips per eye per exam, easily add or remove video clips from exam record
	• Separately save any number of individual frames from video clips as images, complete with annotation(s)
A-Scan Trace	Superimpose arbitrary A-scan trace onto images with a single button click
ICL Nomograms	Built-in Daugherty and Kojima nomograms for optimal ICL sizing
Resolution (Axial)	• 130 μm (12 MHz)   95 μm (20 MHz)   22 μm (35 MHz)   15 μm (50 MHz)
Measurement	Unlimited measurements using linear calipers and angle measurement tool
A-Scan	
Ultrasound Probes	Sealed A-probe with 10 MHz focused transducer     Standard probe for immersion or soft-touch probe for direct contact with minimal corneal compression
Scan Modes	Direct contact or immersion     Manual or Automatic Capture (Cataract, Dense Cataract, Aphakic, and Pseudophakic)
	Anterior chamber depth (ACD), lens thickness, vitreous, and axial length (AXL)     Averages and standard deviation calculated for up to 10 scans per exam     Configurable zone tissue velocities
	On-board calibration
IOL Formulas	
IOL Formulas  Lens Selection	On-board calibration     Standard: Binkhorst, Regression-II, Theoretic/T, Holladay, Hoffer-Q, Haigis     Post-Refractive: Latkany Myopic Regression, Latkany Kyperopic, Aramberri
	On-board calibration     Standard: Binkhorst, Regression-II, Theoretic/T, Holladay, Hoffer-Q, Haigis     Post-Refractive: Latkany Myopic Regression, Latkany Kyperopic, Aramberri Double-K
Lens Selection General	On-board calibration  Standard: Binkhorst, Regression-II, Theoretic/T, Holladay, Hoffer-Q, Haigis Post-Refractive: Latkany Myopic Regression, Latkany Kyperopic, Aramberri Double-K  Lens calculations in 0.25D increments with built-in 1600+ lens database  Outstanding B-Scan and UBM image quality using proprietary Enhanced Focus Rendering* (EFR*)  Continuous interpolative zoom re-renders at each magnification level for
Lens Selection General Image Rendering	On-board calibration  Standard: Binkhorst, Regression-II, Theoretic/T, Holladay, Hoffer-Q, Haigis Post-Refractive: Latkany Myopic Regression, Latkany Kyperopic, Aramberri Double-K  Lens calculations in 0.25D increments with built-in 1600+ lens database  Outstanding B-Scan and UBM image quality using proprietary Enhanced Focus Rendering (EFR")  Continuous interpolative zoom re-renders at each magnification level for optimized image quality (up to 4x zoom)
Lens Selection  General Image Rendering  Annotation	On-board calibration  Standard: Binkhorst, Regression-II, Theoretic/T, Holladay, Hoffer-Q, Haigis Post-Refractive: Latkany Myopic Regression, Latkany Kyperopic, Aramberri Double-K  Lens calculations in 0.25D increments with built-in 1600+ lens database  Outstanding B-Scan and UBM image quality using proprietary Enhanced Focus Rendering (EFR") Continuous interpolative zoom re-renders at each magnification level for optimized image quality (up to 4x zoom)  Automatic annotation of images and video clips  Full-scale patient database with exam record storage
Lens Selection  General Image Rendering  Annotation Database	On-board calibration  Standard: Binkhorst, Regression-II, Theoretic/T, Holladay, Hoffer-Q, Haigis Post-Refractive: Latkany Myopic Regression, Latkany Kyperopic, Aramberri Double-K  Lens calculations in 0.25D increments with built-in 1600+ lens database  Outstanding B-Scan and UBM image quality using proprietary Enhanced Focus Rendering* (EFR*) Continuous interpolative zoom re-renders at each magnification level for optimized image quality (up to 4x zoom)  Automatic annotation of images and video clips  Full-scale patient database with exam record storage Create and save individual user profiles with user-selectable defaults
Lens Selection  General Image Rendering  Annotation Database Reports	On-board calibration  Standard: Binkhorst, Regression-II, Theoretic/T, Holladay, Hoffer-Q, Haigis Post-Refractive: Latkany Myopic Regression, Latkany Kyperopic, Aramberri Double-K  Lens calculations in 0.25D increments with built-in 1600+ lens database  Outstanding B-Scan and UBM image quality using proprietary Enhanced Focus Rendering™ (EFR™) Continuous interpolative zoom re-renders at each magnification level for optimized image quality (up to 4x zoom)  Automatic annotation of images and video clips  Full-scale patient database with exam record storage Create and save individual user profiles with user-selectable defaults  Detailed customizable exam reports for printing or exporting  Two RAID-configured 1 TB enterprise class drives for data storage
Lens Selection  General Image Rendering  Annotation Database  Reports Hard Drives	<ul> <li>On-board calibration</li> <li>Standard: Binkhorst, Regression-II, Theoretic/T, Holladay, Hoffer-Q, Haigis</li> <li>Post-Refractive: Latkany Myopic Regression, Latkany Kyperopic, Aramberri Double-K</li> <li>Lens calculations in 0.25D increments with built-in 1600+ lens database</li> <li>Outstanding B-Scan and UBM image quality using proprietary Enhanced Focus Rendering (EFR")</li> <li>Continuous interpolative zoom re-renders at each magnification level for optimized image quality (up to 4x zoom)</li> <li>Automatic annotation of images and video clips</li> <li>Full-scale patient database with exam record storage</li> <li>Create and save individual user profiles with user-selectable defaults</li> <li>Detailed customizable exam reports for printing or exporting</li> <li>Two RAID-configured 1 TB enterprise class drives for data storage</li> <li>Seprate SATA-SSD dolid-state drive for operating system</li> <li>802.11n dual-band Wi-Fi and Bluetooth 4.0</li> <li>Ports: GigE Ethernet LAN, USB 3.0 (5x), HDMI, serial, VGA, and RJ-45</li> <li>One touch export images (.jpg), video clips (.avi), and exam reports (.pdf) for</li> </ul>
Lens Selection  General  Image Rendering  Annotation  Database  Reports  Hard Drives  Connectivity	<ul> <li>On-board calibration</li> <li>Standard: Binkhorst, Regression-II, Theoretic/T, Holladay, Hoffer-Q, Haigis</li> <li>Post-Refractive: Latkany Myopic Regression, Latkany Kyperopic, Aramberri Double-K</li> <li>Lens calculations in 0.25D increments with built-in 1600+ lens database</li> <li>Outstanding B-Scan and UBM image quality using proprietary Enhanced Focus Rendering (EFR)</li> <li>Continuous interpolative zoom re-renders at each magnification level for optimized image quality (up to 4x zoom)</li> <li>Automatic annotation of images and video clips</li> <li>Full-scale patient database with exam record storage</li> <li>Create and save individual user profiles with user-selectable defaults</li> <li>Detailed customizable exam reports for printing or exporting</li> <li>Two RAID-configured 1 TB enterprise class drives for data storage</li> <li>Seprate SATA-SSD dolid-state drive for operating system</li> <li>802.11n dual-band Wi-Fi and Bluetooth 4.0</li> <li>Ports: GigE Ethernet LAN, USB 3.0 (5x), HDMI, serial, VGA, and RJ-45</li> <li>One touch export images (.jpg), video clips (.avi), and exam reports (.pdf) for referral, presentation, or EMR</li> </ul>
Lens Selection  General Image Rendering  Annotation Database  Reports Hard Drives  Connectivity  Printer	<ul> <li>On-board calibration</li> <li>Standard: Binkhorst, Regression-II, Theoretic/T, Holladay, Hoffer-Q, Haigis</li> <li>Post-Refractive: Latkany Myopic Regression, Latkany Kyperopic, Aramberri Double-K</li> <li>Lens calculations in 0.25D increments with built-in 1600+ lens database</li> <li>Outstanding B-Scan and UBM image quality using proprietary Enhanced Focus Rendering (EFR)</li> <li>Continuous interpolative zoom re-renders at each magnification level for optimized image quality (up to 4x zoom)</li> <li>Automatic annotation of images and video clips</li> <li>Full-scale patient database with exam record storage</li> <li>Create and save individual user profiles with user-selectable defaults</li> <li>Detailed customizable exam reports for printing or exporting</li> <li>Two RAID-configured 1 TB enterprise class drives for data storage</li> <li>Seprate SATA-SSD dolid-state drive for operating system</li> <li>802.11n dual-band Wi-Fi and Bluetooth 4.0</li> <li>Ports: GigE Ethernet LAN, USB 3.0 (5x), HDMI, serial, VGA, and RJ-45</li> <li>One touch export images (.jpg), video clips (.avi), and exam reports (.pdf) for referral, presentation, or EMR</li> <li>Any Windows-compatible printer</li> </ul>



#### Simply the Best



#### Contact Sonomed Escalon at 800-227-1285 For More Information



Easy graphical selection of scan orientation for all modes



Full palette of analysis, measurement, and annotation tools



Frame-by-frame, full speed, and slow motion review of video clips



8 UBM and B-Scan preset scan modes with settings optimized for areas of interest

