Simply the Best

VuMAX™ HD
B-Scan | UBM | A-Scan

Sonomed Escalon™
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™ series from Sonomed Escalon has long been the gold standard in UBM imaging. Now with Enhanced Focus Rendering™ and other enhancements, the VuMAX™ 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.

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# B-Scan and UBM

## Ultrasound Probes
- Sealed 12 MHz or 20 MHz B-probes with focused transducers
- Water path probe with 35 MHz or 50 MHz transducers

## 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
- Eye Tracking feature for alignment of sulcus-to-sulcus measurement for ICL sizing
- Angle Analysis feature for quantitative assessment of angle

## Scan Sampling
- 256 ray scan with 2048 sample points for each ray (over half-million sample points per transducer 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

## Images
- 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)

## Measurements
- 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
- Standard: Binkhorst, Regression-II, Theoretic/T, Holladay, Hoffer-Q, Haigis
- Post-Refractive: Latkany Myopic Regression, Latkany Hyperopic, Aramberri Double-K

## Lens Selection
- Lens calculations in 0.25D increments with built-in 1600+ lens database

## General

## Image Rendering
- 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)

## Annotation
- Automatic annotation of images and video clips

## Database
- Full-scale patient database with exam record storage
- Create and save individual user profiles with user-selectable defaults

## Reports
- Detailed customizable exam reports for printing or exporting

## Hard Drives
- Two RAID-configured 1 TB enterprise class drives for data storage
- Seperate SATA-SSD solid-state drive for operating system

## Connectivity
- 802.11n dual-band Wi-Fi and Bluetooth 4.0
- Ports: GigE Ethernet LAN, USB 3.0 (Sx), HDMI, serial, VGA, and RJ-45
- One touch export images (.jpg), video clips (.avi), and exam reports (.pdf) for referral, presentation, or EMR

## Printer
- Any Windows-compatible printer

## Operating System
- Microsoft Windows 8

## Console Dimensions
- 13.5”w x 13.5”d x 3.0”h (34.3 cm x 34.3 cm x 7.6 cm)

## Power
- 100 - 240 VAC, 50/60 Hz auto-switching medical-grade power supply

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**VuMAX HD**

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Contact Sonomed Escalon at 800-227-1285

For More Information

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