



One Powerful Vision

Customized to best meet your needs.

With customized configuration of A-Scan and B-Scan modes, Eye Cubed™ covers all of your diagnostic ultrasound needs for both the posterior and anterior segments. Featuring superior image clarity and flexible measurements, Eye Cubed™ can be used for thorough pre-operative and post-operative assessment of ocular anatomy.

Product Specifications

Network and Connectivity

- Six USB 2.0 ports for memory sticks and peripherals
- Fully network and printer-ready (gigabit Ethernet)
- Purpose-built Windows embedded operating system
- Multilingual user interface

Data Management

- DICOM Connectivity:
 - Verification of multiple concurrent DICOM connections to other Application Entities (AEs)
 - Query / retrieval of modality work list (patient data from Electronic Medical Records - EMR)
 - Storage of DICOM objects to EMR / Picture Archiving and Communication Systems (PACS)
- Data archiving and image / movie export capability
- Customized report capability

B-Scan Modes

- Four sets of electronic distance measurement calipers with variable velocity
- Two sets of electronic angle measurement calipers (variable velocity)
- Movie sequence - real-time viewing and editing capability

10 MHz Posterior Segment

- 25 frames-per-second image acquisition rate
- 10-second movie loop capability
- Sealed probe
- Adjustable transmit gain (minimum to 0 dB)
- Adjustable receive gain (27-90 dB)
- Adjustable dynamic range (Log, S1, S2, S3)
- Axial resolution: 50 microns
- Lateral resolution: 100 microns
- Scanning angle: 52 degrees
- Image depth (displayed image): 48 mm
- Focal depth: 25 mm
- Image width at focal zone: 19-36 mm
- Focal range: 15-35 mm

40 MHz UBM Wide-Field Anterior Segment

- 13 frames-per-second image acquisition rate
- 20-second movie loop capability
- Adjustable transmit gain (minimum to 0 dB)
- Adjustable receive gain (27-90 dB)
- Adjustable dynamic range (Log, S1, S2, S3)
- Axial resolution: 23 microns
- Lateral resolution: 33 microns
- Scanning angle: 30 degrees
- Image depth (displayed image): 11.9 mm
- Focal depth: 12.5 mm
- Image width at focal zone: 15-18 mm
- Focal range: 10.5-14.5 mm

Hardware Features

- Footswitch control (scan start, scan stop, scan save, etc.)
- Removable one-terabyte hard drive
- Wide screen, 1920 x 1200 high-resolution monitor

Electrical Requirements

Power supply	100-240 VAC auto-ranging
Frequency	50/60 Hz
Input power	220 VA
System Size	15.5 x 17 x 6.5 inches (39 x 43 x 16.5 cm)
Weight	26 lbs. (12kg)

A-Scan Modes

- IOL power calculations and analysis:
 - Holladay-I
 - SRK-T
 - Haigis (optional)
 - Hoffer-Q
- Movie sequence adjustable up to 5 seconds
- 50 frames-per-second image acquisition rate

Axial Length Biometry A-Scan

- Immersion or contact method
- Solid focused probe with internal fixation light
- Probe frequency: 10 MHz
- Image depth: 40 mm
- Points on x-axis: 2048
- 8 bit resolution
- Measurement accuracy: 50 microns inherent, 100 microns clinical
- Automatic or manual scan acquisition
- Built-in pattern recognition with automatic scleral echo detection
- Statistics: average and standard deviation

Standardized Diagnostic A-Scan

- Two caliper measurements displayed in mm with variable velocities
- Tissue sensitivity value stored in memory with reset function
- Probe frequency: 8 MHz parallel beam
- Measurement accuracy: 50 microns inherent, 100 microns clinical

Specifications are subject to change without notice.

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eyecubed™

premier diagnostic ultrasound



Considered to be the gold standard in ophthalmic diagnostic ultrasound, Eye Cubed™ features advanced movie mode using the fastest sampling rate available, real-time image processing and a range of self-calibrating Smart Talk™ probes to deliver unparalleled image sensitivity and quality.



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Customized Configuration to Best Meet Your Needs

Customized configuration of A-Scan and B-Scan modes ensures that Eye Cubed™ meets all of your needs for both the posterior and anterior segments.

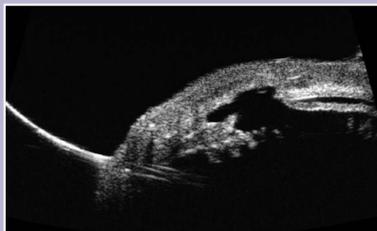
40 MHz UBM B-Scan mode delivers accurate measurement and evaluation of the iris, lens, angle and ciliary body, including sulcus-to-sulcus (ICL sizing) and IOL haptic placement.

10 MHz Posterior B-Scan mode produces the subtlest vitreous echoes, offering unparalleled distinction between the retina, choroid and sclera, as well as the vitreo retinal junction.

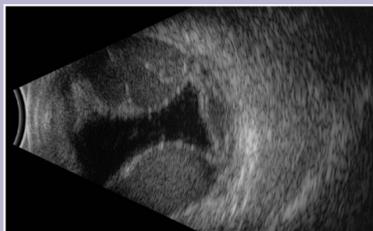
Biometry A-Scan delivers ultra-precise axial length measurement with faster, easier image acquisition in real-time movie mode.

Standardized Diagnostic A-Scan enables precision tissue differentiation.

B-Scan Modes

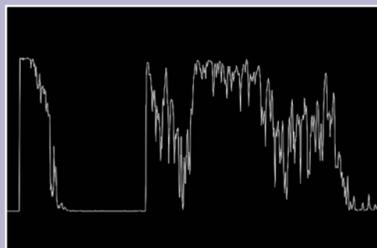


40 MHz UBM Wide-Field Anterior

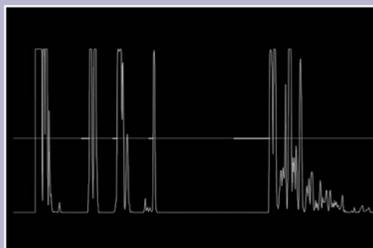


10 MHz Posterior

A-Scan Modes



Standardized Diagnostic



Axial Length Biometry

1 Highest Signal-to-Noise Ratio for Better Vision

With a unique amplifier and probe design, combined with the industry's highest signal-to-noise ratio, Eye Cubed™ delivers substantially more ultrasonic data per second than any other ultrasound system on the market today. Because noise is reduced to a minimum, details of even the finest ocular structures become visible – including blood and inflammatory cells.

2 Advanced Movie Technology for Greater Ease of Use

Eye Cubed's advanced movie technology allows you to capture up to 20-second movies, enhancing the diagnostic capability and speed of each exam. Review these movies frame-by-frame for greater detail, or play them back in full movie-mode.

3 High Speed Imaging for Real-Time Display

With an image acquisition and display rate of up to 25 frames-per second, Eye Cubed™ provides the fastest image-sampling rate available. This speed creates a real-time view of detailed ocular activity, including blood cell movement and membrane behavior.

4 Custom Velocity Settings for Greater Precision

In addition to pre-programmed velocities for phakic, aphakic and 4 types of pseudo-phakic eyes, Eye Cubed™ enables you to adjust for all particular cases and program velocities accordingly.

5 DICOM for Improved Connectivity

An optional DICOM license streamlines the examination process, from start to finish:

1. Load patient work list from the EMR system and select patient record
2. Perform examination
3. Store examination reports to the network (EMR system or Picture Archiving and Communication System - PACS)

6 Intuitive User-Friendly Software

Eye Cubed™ incorporates a number of features designed to accelerate practice workflow, including improved export and import functionality and expanded measurement options. Intuitive and easy-to-use, it offers a multilingual user interface, full-screen scan viewing and customized report capability.

7 NEW Real-Time Image Processing for a More Defined, Detail-Rich Image

Image processing algorithms and unique amplifiers allow you to enhance each scan in real-time – not after the fact. These algorithms are optimized for use in ophthalmic echography and have been developed by Ellex's in-house software engineering team to deliver greater image control. Choose your preferred interpolation method from a number of options, including:

- | | |
|-------------------------|----------------------------|
| 1. Lowest neighbor | 3. Bi-linear interpolation |
| 2. Linear interpolation | 4. Cubic interpolation |

8 NEW Sensitive Scan™ Transmit Energy Control for Greater Image Detail

Featuring Sensitive Scan™ technology, Eye Cubed™ enables you to adjust the probe transmit energy to ensure optimal tissue sensitivity. This gives you the ability to discern between the finest ocular structures, such as subtle vitreous opacities and subretinal fluids.

9 NEW Self-Calibrating Smart Talk™ Probes

Each Smart Talk™ probe communicates with the Eye Cubed's system electronics to deliver greater image detail, sensitivity and resolution. Unlike conventional probes, which use average probe settings, this process of self-calibration ensures that each Smart Talk™ probe is assigned the optimal parameter settings based on its mechanical and acoustic characteristics.



Smart Talk™ Probes



40 MHz UBM Wide-Field Anterior Segment B-Scan Probe

Available with ClearScan® Immersion Bag

*ClearScan is a registered trademark of ESI, Inc.



10 MHz Sealed B-Scan Probe



10 MHz Focused A-Scan Probe

With internal fixation light for biometry A-Scan



8 MHz A-Scan Probe

For standardized diagnostic A-Scan

Accessories



Scleral Shells for B-Scan

Available in:
20mm Adult size
18mm Pediatric size



Shells for Immersion Biometry

Available in:
17mm Adult size
15mm Pediatric size