

## A pedigree to make you proud.

Built on Ellex's best-in-class Eye Cubed™ platform, Eye One™ offers a comprehensive range of probe frequencies from conventional 10 MHz posterior B-Scan through to high frequency anterior segment imaging in a compact, portable ultrasound platform.

eye one™

### PRODUCT SPECIFICATIONS

#### Network and Connectivity

- USB connectivity to off-the shelf Windows® Notebook computer (\*)
- New, easy-to-use GUI (graphical interface)
- Multilingual user interface
- Ellex remote access

#### Notebook Requirements

- Processor: Quad Core™ Intel® i7
- RAM: 8GB
- Operating System: Windows® 10 Professional (64bit)
- Display: 15.6 full HD (1920 x 1080)
- Graphics: 2GB or higher video memory
- Hard Drive: 512GB or larger

#### Data Management

- Data archiving and image export capability
  - Customized report capability
  - 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)

#### Hardware Features

- Slim line console with removable probe holders for easy cleaning
- Footswitch control (scan start; scan stop)

\*Note: please consult your local Ellex sales representative for more information regarding Notebook computer specifications and compatibility.

#### Electrical Requirements

Power supply  
100-240 VAC auto-ranging

Frequency  
50/60 Hz

Input power  
50 VA

System Size (excl. computer)  
19 x 11 x 6 inches (47.5 x 27 x 15 cm)

Weight (excl. computer)  
11 lbs. (5 kg)

### 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

### A-SCAN MODES

#### 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
- Steps of resolution: 256
- 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
- Movie sequence adjustable up to 5 seconds
- 50 frames-per-second image acquisition rate
- IOL power calculations and analysis:
  - Holladay-I
  - SRK-T
  - Haigis
  - Hoffer-Q

#### Standardized Diagnostic A-Scan

- Movie sequence adjustable up to 5 seconds
- 50 frames-per-second image acquisition rate
- 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.

© 2016, Ellex Medical Pty Ltd. Ellex, Eye One and Eye Cubed are trademarks of Ellex Medical Pty Ltd. E&OE. PB0020A

**NEW!**

**PORTABLE  
DIAGNOSTIC  
ULTRASOUND  
PLATFORM**



eye one™

Eye One™ delivers Ellex's renowned advanced movie-mode technology and real-time image processing in a compact, portable ultrasound platform.



ellex.com

**Headquarters**  
82 Gilbert Street  
Adelaide, SA, 5000 AUSTRALIA  
+61 8 8104 5200

**Japan**  
3F, 3-2-22 Harumi Chuo-ku  
Tokyo 104-0053 JAPAN  
+81 3 5859 0470

**USA**  
7138 Shady Oak Road  
Minneapolis, MN, 55344 USA  
800 824 7444

**Germany**  
ZPO floor 1, Carl-Scheele-Str.16  
12489 Berlin GERMANY  
+49 30 6392896 00

**Australia**  
82 Gilbert Street  
Adelaide, SA, 5000 AUSTRALIA  
+61 8 8104 5264

**France**  
La Chaufferie - 555 chemin du bois  
69140 Rillieux la Pape FRANCE  
+33 4 8291 0460



**CUSTOMIZED TO MEET YOUR NEEDS**

From diagnostic A-Scan to high-frequency B-Scan, Eye One™ can be configured to cover all of your diagnostic ultrasound needs for both the posterior and anterior segments. In posterior B-Scan mode, Eye One™ detects the subtlest vitreous echoes, offering unparalleled distinction between the retina, choroid and sclera, as well as the vitreo retinal junction. In anterior 40 MHz UBM wide-field mode, Eye One™ allows you to precisely view the entire anterior segment in identifying causes of glaucoma-related disease, and to accurately and consistently measure key parameters of the angle.



**B-SCAN: 40 MHZ UBM**

Analysis and diagnosis of glaucoma and anterior chamber disorders.

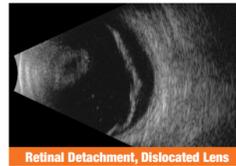
Accurate measurement and evaluation of the iris, lens, angle and ciliary body, including sulcus-to-sulcus (ICL sizing) and IOL haptic placement.



**B-SCAN: 10 MHZ POSTERIOR**

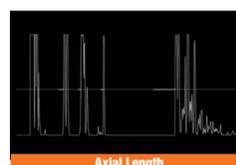
Management of patients with vitreoretinal disorders, including detection and differentiation of membranes such as posterior vitreous detachment (PVD) in opaque media.

Detection and differentiation of intraocular and orbital tumors.



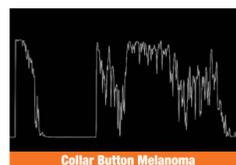
**A-SCAN: BIOMETRY**

Precise axial length measurement for pre-operative assessment of cataract patients.



**A-SCAN: STANDARDIZED DIAGNOSTIC**

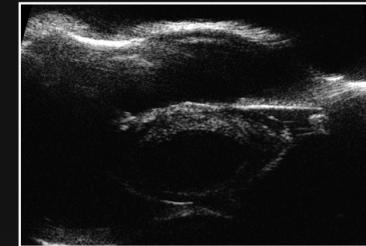
Precise tissue differentiation and measurement of intraocular or orbital pathology detected on B-Scan.



**UNPARALLELED IMAGE QUALITY AND DETAIL**

**HIGHEST SIGNAL TO NOISE RATIO**

Offering the industry's highest signal-to-noise ratio, Eye One™ reduces noise to a minimum at all frequencies. This ensures that details of even the finest ocular structures become visible – including blood and inflammatory cells. It also allows you to adjust the probe transmit energy to adapt to the tissue under evaluation, refining the accuracy of your diagnosis of the subtlest echoes from vitreous opacities or blood cells.



**ADVANCED MOVIE TECHNOLOGY**

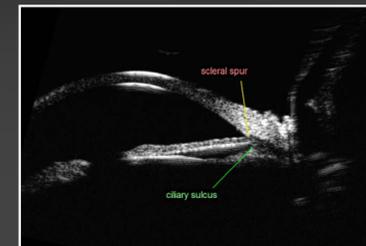
Capture movies of up to 20-seconds with Eye One's advanced movie mode technology. Replay these movies at full speed, or review frame-by-frame for greater detail.

**REAL-TIME DISPLAY**

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

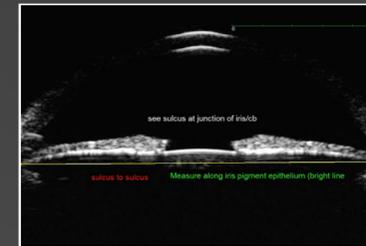
**EASY MEASUREMENT AND ANNOTATION**

Eye One™ offers a number of measurement and annotation tools for use during and after examination image assessments, including easy-to-use distance and angle measurement calipers. It also offers optimized reporting capabilities.



**SULCUS TO SULCUS FOR ICL SIZING**

Eye One's 40 MHz UBM probe provides a consistent, clear view of key anatomical landmarks required to make accurate sulcus-to-sulcus measurements, allowing you to determine proper ICL selection with a reduced risk of lens vaulting or displacement.



**EYE ONE PLATFORM**



A truly portable ultrasound platform, Eye One™ comprises a slim line console designed for easy transportation between clinics and comes standard with a carry case. Easy-to-use, it is designed to interface with a number of off-the-shelf Full HD notebook computers(\*).

\* Please consult your local Ellex Sales representative for more information.

**ACCESSORIES**



**PROBES**

