The intuitive diagnostic ultrasound platform

<table>
<thead>
<tr>
<th>Equipment</th>
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<tbody>
<tr>
<td>B-SCAN, 40 MHZ UBM</td>
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<tr>
<td>B-SCAN, 10 MHZ POSTERIOR</td>
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<tr>
<td>A-SCAN, BIOMETRY</td>
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<tr>
<td>A-SCAN, STANDARDIZED DIAGNOSTIC</td>
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Helping the world see clearly
The flexible, intuitive solution for ultrasound diagnosis

If you’re searching for a customizable ultrasound platform that covers all examination and measurement scan modes in an easy-to-use, compact design, Eye One™ is the solution you’re looking for.

From diagnostic A-Scan to high-frequency B-Scan, Eye One™ delivers comprehensive capability to meet your ultrasound needs for both the posterior and anterior segments.

Custom configuration of scan modes

Choose Eye One™, and you can select from four scan modalities, which comprise:

- B-SCAN, 40 MHZ UBM
- B-SCAN, 10 MHZ POSTERIOR
- A-SCAN, BIOMETRY
- A-SCAN, STANDARDIZED DIAGNOSTIC
In anterior wide-field mode, Eye One™ allows you to view the entire segment to identify and measure all structures present and accurately determine the next clinical steps required.

In posterior B-Scan mode, Eye One’s industry leading signal-to-noise ratio means it’s able to detect the subtlest vitreous echoes, offering unparalleled distinction and diagnosis accuracy across the retina, choroid, sclera, and the vitreo retinal junction.

In anterior wide-field mode, Eye One™ allows you to view the entire segment to identify and measure all structures present and accurately determine the next clinical steps required.

With features including advanced movie mode technology, real-time image capture, a wide range of measurement and annotation tools and reporting capabilities and intuitive and easy-to-use software, Eye One™ delivers all the performance requirements you’re looking for in a practical form that also offers the convenience of portability should you need it.
**Ultrasound: a critically important tool**

Ultrasonography’s unique imaging capability makes it a critically important diagnostic tool in ophthalmology. High-resolution ultrasound enables the interpretation of certain structures that cannot be seen as clearly with lower-resolution ultrasound systems. For clearer and sharper imaging, and better accuracy, high resolution is vital.

Further, the detection of disorders like posterior vitreous detachment (PVD) in opaque ocular media is easily achieved with B-Scan ultrasound. With the additional capability of video capturing, advanced ultrasound systems can be used to determine ocular structures more clearly — with the additional benefit that patients are able to better understand their condition.

**Ellex: a history of innovation in imaging**

Ever since Ellex acquired Sacramento-based ophthalmic ultrasound pioneers Innovative Imaging Inc. in 2006, the company has worked hard to evolve the performance and application of the Eye Cubed™ ultrasound technology platform — and we continue to provide training in clinical ultrasound applications by expert echographers.
Eye One™ key features — at a glance

**Highest Signal To Noise Ratio**

With its market leading 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 level appropriate for 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 duration with advanced movie mode technology. Replay at full speed, or review frame-by-frame for greater detail.

**Real-Time Imaging**

Ultra fast 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**

Key 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**

40 MHz UBM probe provides a consistent, clear view of key anatomical landmarks to enable accurate sulcus-to-sulcus measurements. This allows you to determine proper ICL selection with a reduced risk of lens vaulting or displacement.

**Intuitive User-Friendly Software**

Designed to accelerate practice workflow, including improved export and import functionality and expanded measurement options. Intuitive and easy-to-use, its software incorporates a customized report capability.

**An All-in-One solution**

Cart-based configuration (optional accessory)

This configuration combines the slimline Eye One™ Console with an All-In-One Windows® computer and a custom-built cart

Ergonomic and user-friendly solution with height-adjustable work surface to accommodate both sitting and standing user preference

Versatile in meeting the needs of multi-physician practices etc
All-in-One Computer

Processor
Quad Core™ Intel® i7 (i.e. i7 6700T or i7 6700k)*

RAM
8GB

Operating System
Windows® 10 Professional (64bit)

Display
15.6 full HD (1920 x 1080), 4k not recommended

Hard Drive
512GB or larger

*based on processors available today

All-In-One Cart

Height (with monitor)
59-67 inches (150-170 cm)

Width
28 inches (71 cm)

Depth
25 inches (63.5cm)

Table size
18” d x 20” w (45.7 cm x 50.8 cm)
Mode Specifications

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

<table>
<thead>
<tr>
<th>10 MHz Posterior Segment</th>
<th>40 MHz UBM Wide-Field Anterior Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 frames-per-second image acquisition rate</td>
<td>13 frames-per-second image acquisition rate</td>
</tr>
<tr>
<td>10-second movie loop capability</td>
<td>20-second movie loop capability</td>
</tr>
<tr>
<td>Adjustable transmit gain (minimum to 0 dB)</td>
<td>Adjustable transmit gain (minimum to 0 dB)</td>
</tr>
<tr>
<td>Adjustable receive gain (27-90 dB)</td>
<td>Adjustable receive gain (27-90 dB)</td>
</tr>
<tr>
<td>Adjustable dynamic range (Log, S1, S2, S3)</td>
<td>Adjustable dynamic range (Log, S1, S2, S3)</td>
</tr>
<tr>
<td>Scanning angle: 52 degrees</td>
<td>Scanning angle: 30 degrees</td>
</tr>
<tr>
<td>Image depth (displayed image): 48 mm</td>
<td>Image depth (displayed image): 11.9 mm</td>
</tr>
<tr>
<td>Focal depth: 25 mm</td>
<td>Focal depth: 12.5 mm</td>
</tr>
<tr>
<td>Image width at focal zone: 19-36 mm</td>
<td>Image width at focal zone: 15-18 mm</td>
</tr>
<tr>
<td>Focal range 15-35 mm</td>
<td>Focal range: 10.5-14.5 mm</td>
</tr>
<tr>
<td>Sealed Probe</td>
<td></td>
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</tbody>
</table>
# A-Scan Modes

<table>
<thead>
<tr>
<th>Axial Length Biometry A-Scan</th>
<th>Standardized Diagnostic A-Scan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immersion or contact method</td>
<td>Movie sequence adjustable up to 5 seconds</td>
</tr>
<tr>
<td>Solid focused probe with internal fixation light</td>
<td>50 frames-per-second image acquisition rate</td>
</tr>
<tr>
<td>Probe frequency: 10 MHz</td>
<td>Two caliper measurements displayed in mm with variable velocities</td>
</tr>
<tr>
<td>Image depth: 40 mm</td>
<td>Tissue sensitivity value stored in memory with reset function</td>
</tr>
<tr>
<td>Points on x-axis: 2048</td>
<td>Probe frequency: 8 MHz parallel beam</td>
</tr>
<tr>
<td>8 bit resolution</td>
<td>Measurement accuracy: 50 microns inherent, 100 microns clinical</td>
</tr>
<tr>
<td>Steps of resolution: 256</td>
<td></td>
</tr>
<tr>
<td>Measurement accuracy: 50 microns inherent, 100 microns clinical</td>
<td></td>
</tr>
<tr>
<td>Automatic or manual scan acquisition</td>
<td></td>
</tr>
<tr>
<td>Built-in pattern recognition with automatic scleral echo detection</td>
<td></td>
</tr>
<tr>
<td>Statistics: average and standard deviation</td>
<td></td>
</tr>
<tr>
<td>Movie sequence adjustable up to 5 seconds</td>
<td></td>
</tr>
<tr>
<td>50 frames-per-second image acquisition rate</td>
<td></td>
</tr>
<tr>
<td>IOL power calculations and analysis:</td>
<td></td>
</tr>
<tr>
<td>• Holladay-I</td>
<td>• Haigis</td>
</tr>
<tr>
<td>• SRK-T</td>
<td>• Hoffer-Q</td>
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</tbody>
</table>
Accessories

Prager Shells® for A-Scan Biometry
(Optional Accessory)
Prager Shells are available in:
15 mm Adult size
12.5 mm Pediatric size

Scleral Shells for 40 MHz B-Scan
(Optional Accessory)
Scleral Shells are available in:
20 mm Adult size
18 mm Pediatric size

ClearScan® Bag for 40 MHz B-Scan
(Optional Accessory)
ClearScan® is an innovative single-use ultrasound probe cover. Consisting of an extremely thin film that is acoustically invisible, ClearScan® provides distortion free ultrasound imaging with the added benefit of patient comfort. In addition, the conical shape of ClearScan® enables safe and effective examination of all eye quadrants without causing corneal abrasion.

Ellex Probes

1. B-Scan: 40 MHz UBM Wide-Field
2. B-Scan: 10 MHz Posterior
3. A-Scan: 10 MHz Biometry
4. A-Scan: 8 MHz Standardized Diagnostic

ClearScan® and Prager® are registered trademarks of ESI, Inc.
## Hardware Specifications

### Network and Connectivity
- USB connectivity to off-the-shelf Windows® Notebook computer*
- New, easy-to-use GUI (graphical interface)

### 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)

### Eye One Console
- Slim line design with removable probe holders for easy cleaning
- Footswitch control (scan start; scan stop; scan save)

### 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)

### All-in-One Computer
- Processor: Quad Core™ Intel® i7 (i.e. i7 6700T or i7 6700k)**
- RAM: 8GB
- Operating System: Windows® 10 Professional (64bit)
- Display: 15.6 full HD (1920 x 1080), 4k not recommended
- Hard Drive: 512GB or larger

### Notebook Computer
- 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

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*Please consult your local Ellex Sales representative for more information.
**Based on processors available today
Find out how Eye One™ will meet your ultrasound needs for both the posterior and anterior segments.

Contact us now to schedule a demonstration

Helping the world see clearly

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