eye prime™

The next generation ultrasound solution

Introducing Six-Ring Pulsed Array Annular Technology from Ellex

- B-SCAN, 35 MHZ AND 50 MHZ UBM
- B-SCAN, 12 MHZ AND 18 MHZ 6 RING ANNULAR ARRAY POSTERIOR
- A-SCAN, 10 MHZ BIOMETRY
- A-SCAN, 8 MHZ DIAGNOSTIC

Helping the world see clearly

Eye Prime™ — the next generation in ophthalmic ultrasound resolution

Ultrasonography plays a critically important diagnostic role in ophthalmology — and now, with Eye Prime™ from Ellex, you can achieve even more.

Eye Prime™ is breakthrough technology that transforms your view of even the finest ocular structures, enabling you to view, diagnose and treat more accurately and more efficiently than ever before.

Six-Ring Phased Array Annular Technology

Eye Prime™ features proprietary Phased Array Annular Technology that transmits and receives ultrasound waves from six concentric transducers, which can be individually pulsed. The transmitted beam from each transducer can be focused through a wide range of depths in 1mm increments and thereby enables you to focus anywhere in the posterior segment — and beyond.*

New levels of flexibility

Eye Prime™ refocuses the beam transmission at a wide range of depths, optimizing resolution at each pixel and extending the depth-of-field at each focal point to deliver real-time, dynamic imaging.

Agile Focus™ for image optimization

With the proprietary algorithm Agile Focus™ Technology, Eye Prime™ refocuses and enhances every pixel in 1mm incremental steps to optimize examination for all patients regardless of orbital size — and takes your ultrasound capability to the next level.

agilefocus

Eye Prime™ scan modalities

Eye Prime™ covers all your diagnostic ultrasound needs for both the posterior and anterior segments from the following scan modalities:

B-SCAN, 35 MHZ and 50 MHZ UBM

B-SCAN, 12 MHZ and 18 MHZ 6 RING ANNULAR ARRAY POSTERIOR

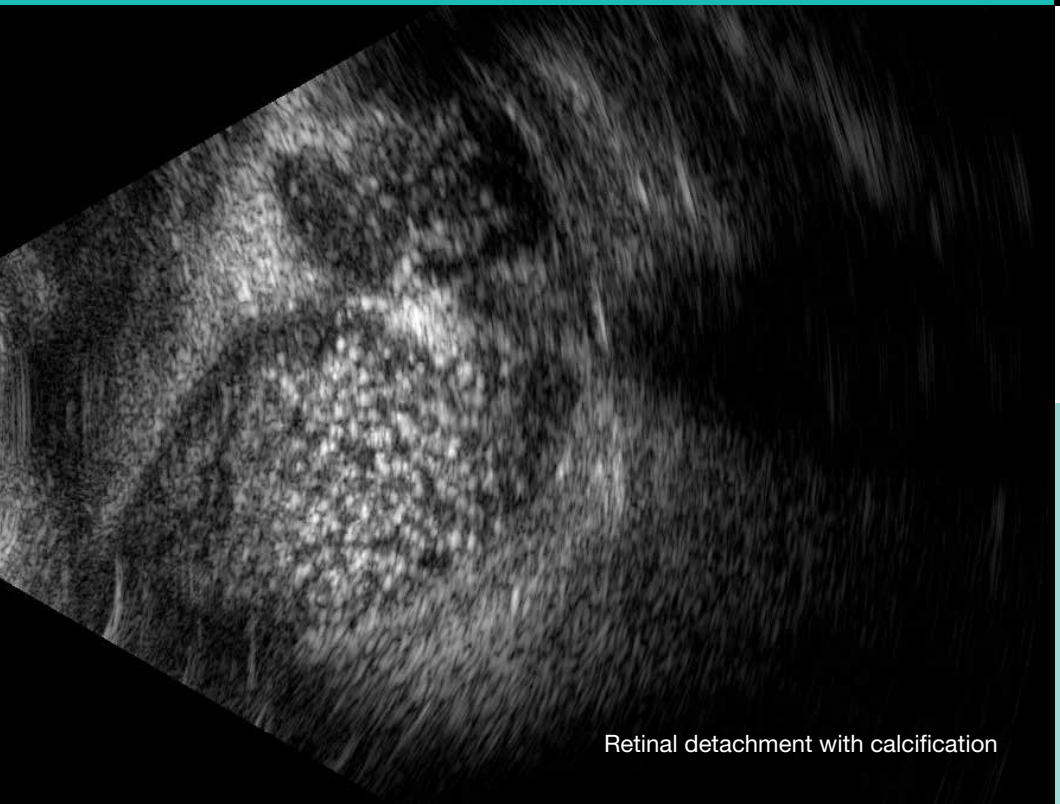
A-SCAN, 10 MHZ BIOMETRY

A-SCAN, 8MHZ DIAGNOSTIC

**Available in 12MHz and 18MHz modes*

Proprietary Six-Ring Phased Array Annular Technology delivers crisp high definition imaging and optimized focal point accuracy.

Retinal detachment with PVR



Retinal detachment with calcification

"Maximize echo amplification and preserve tissue differentiation"

"Unparalleled levels of accuracy, flexibility and image quality"

Floater

B-Scan, 12 MHz Posterior

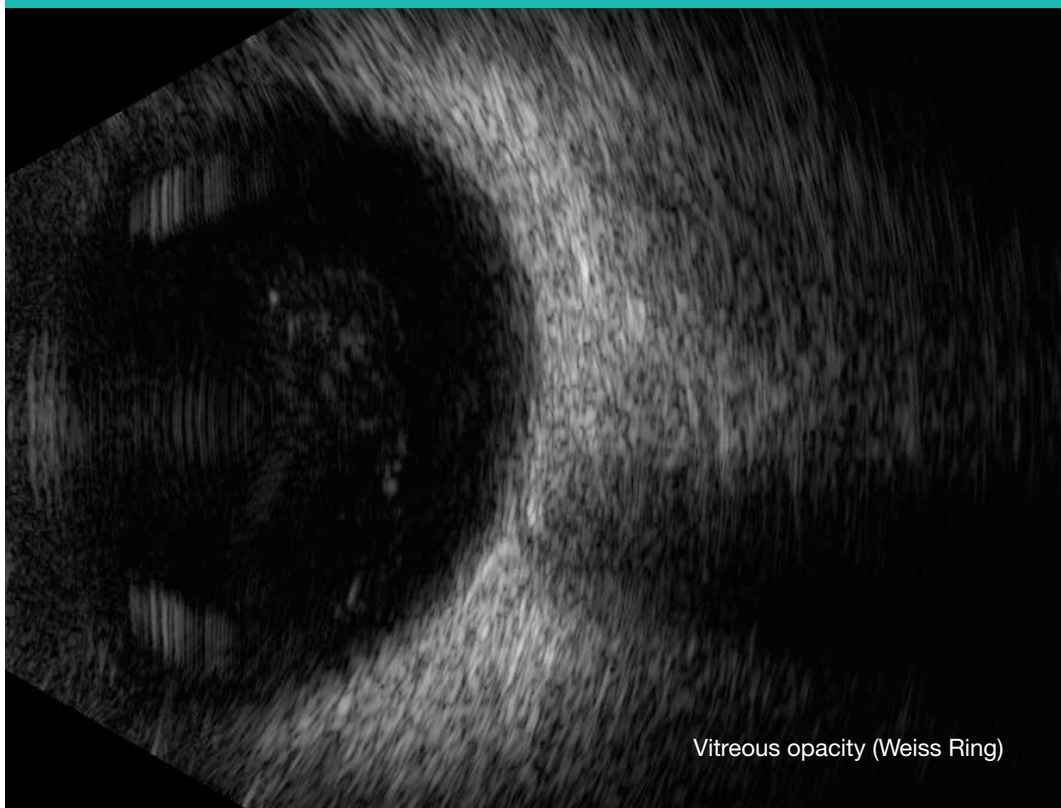
When it comes to the treatment of floaters, the sensitivity of visualization is everything.

In Eye Prime's 12 MHz mode, large apertures, unique time gain compensation (TGC) presets and deep focusing all combine to ensure that visualization of subtle targets such as vitreous membranes and opaque collagen clusters are presented and defined in superior detail.

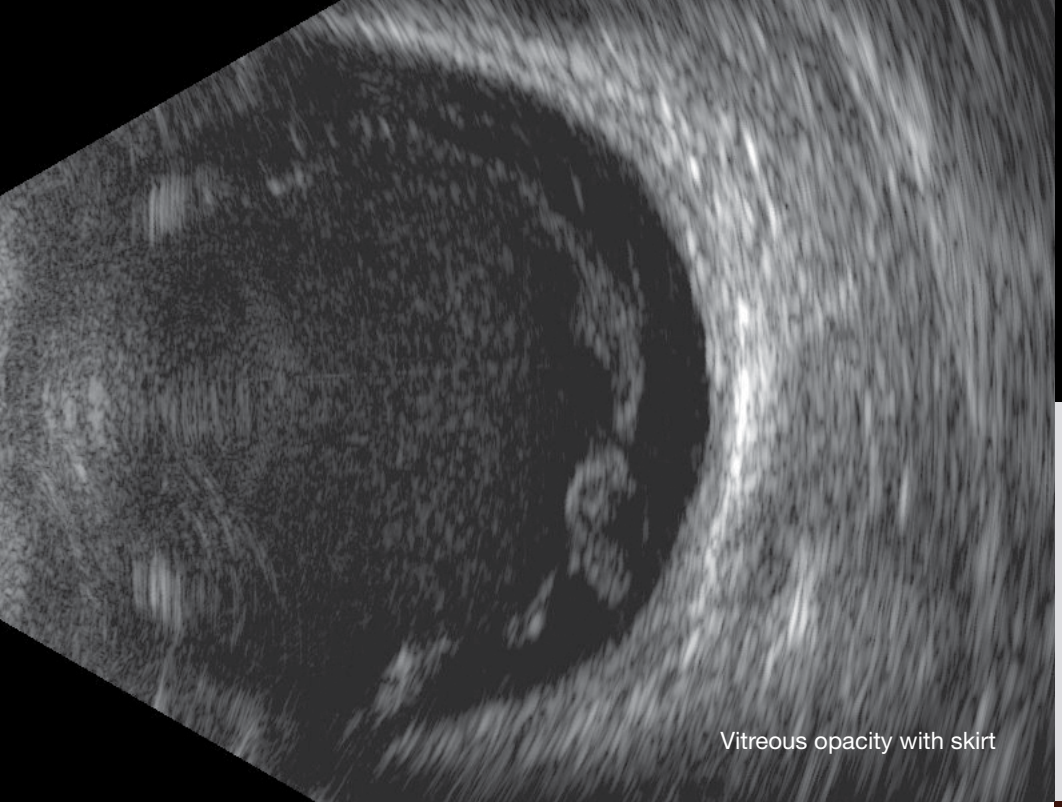
Eye Prime™ matched with Ellex's proprietary Reflex Technology™ represents the perfect partnership for floater visualization and treatment.

eye prime™

Eye floaters can be a nuisance, negatively impacting everyday life. In some cases, they can impair vision due to their size and location in the eye.



Vitreous opacity (Weiss Ring)

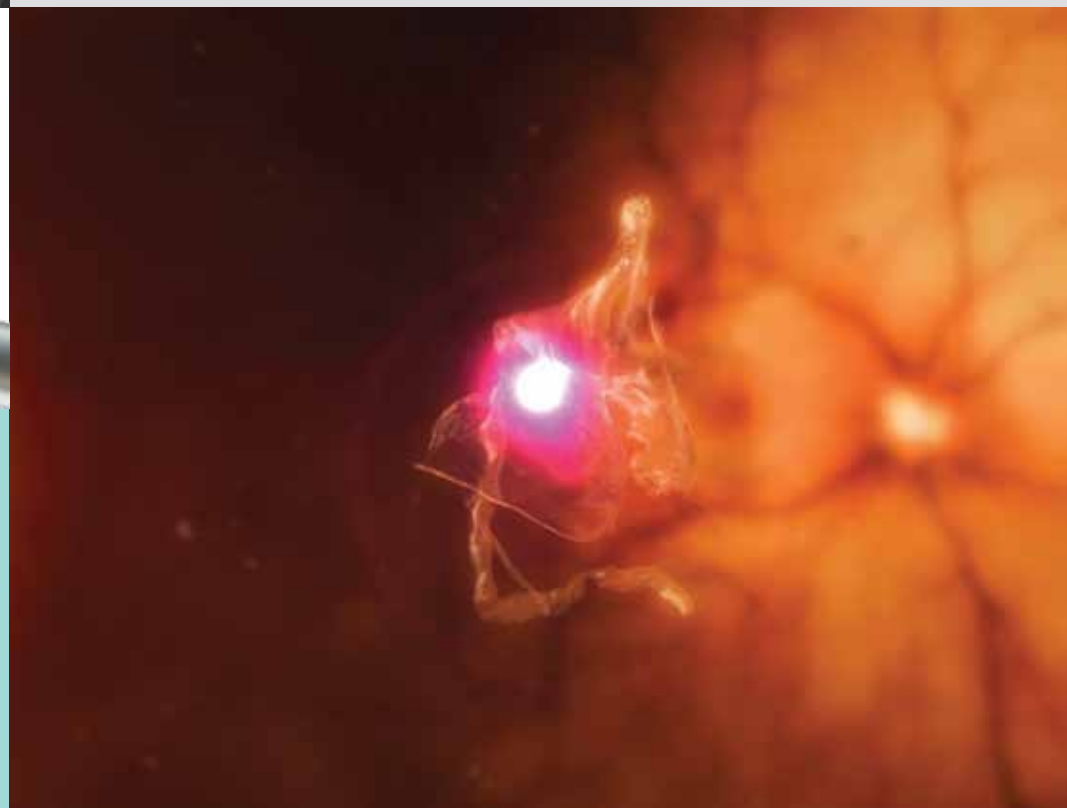


Vitreous opacity with skirt

reflex TECHNOLOGY™

"Tailor sensitivity and resolution to the application"

"Visualize the entire vitreous – in perfect focus, from posterior lens to the retina"

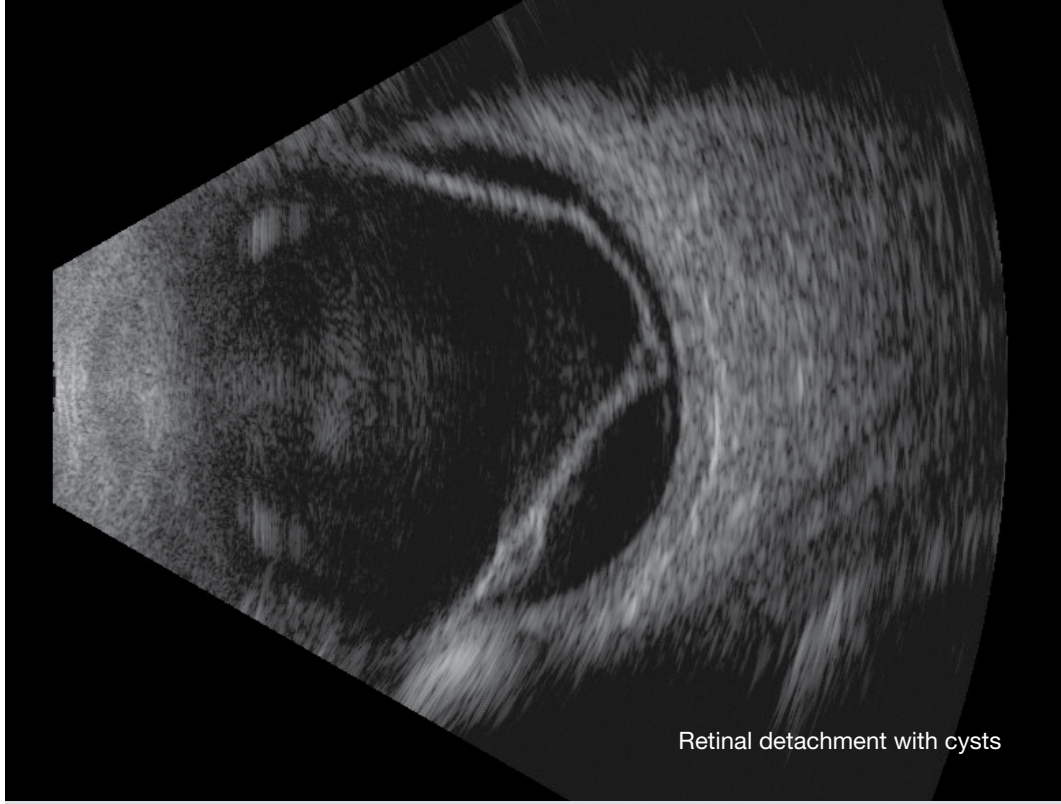


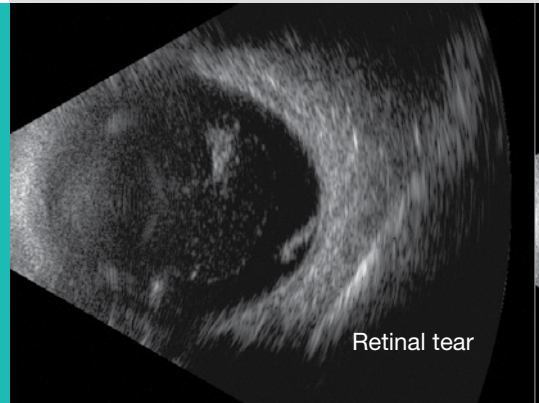
Focused on

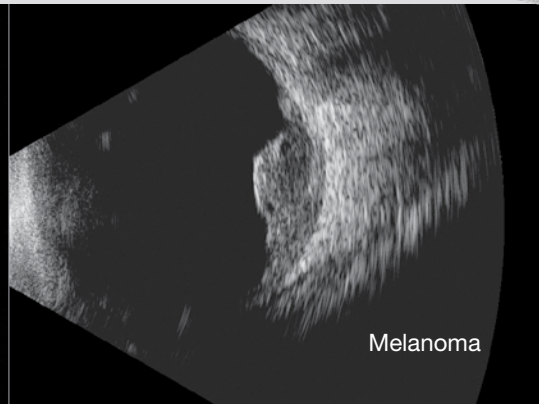
B-Scan, 18 MHz Posterior

In 18 MHz mode you can tailor sensitivity and resolution across pathology and clinical applications. Exquisite detail throughout the posterior segment reveals unsurpassed imaging of the retina, optic nerve and extraocular muscle.

"No more posterior orbit saturation of the retina, optic nerve and extraocular muscles"


Retinal detachment with cysts

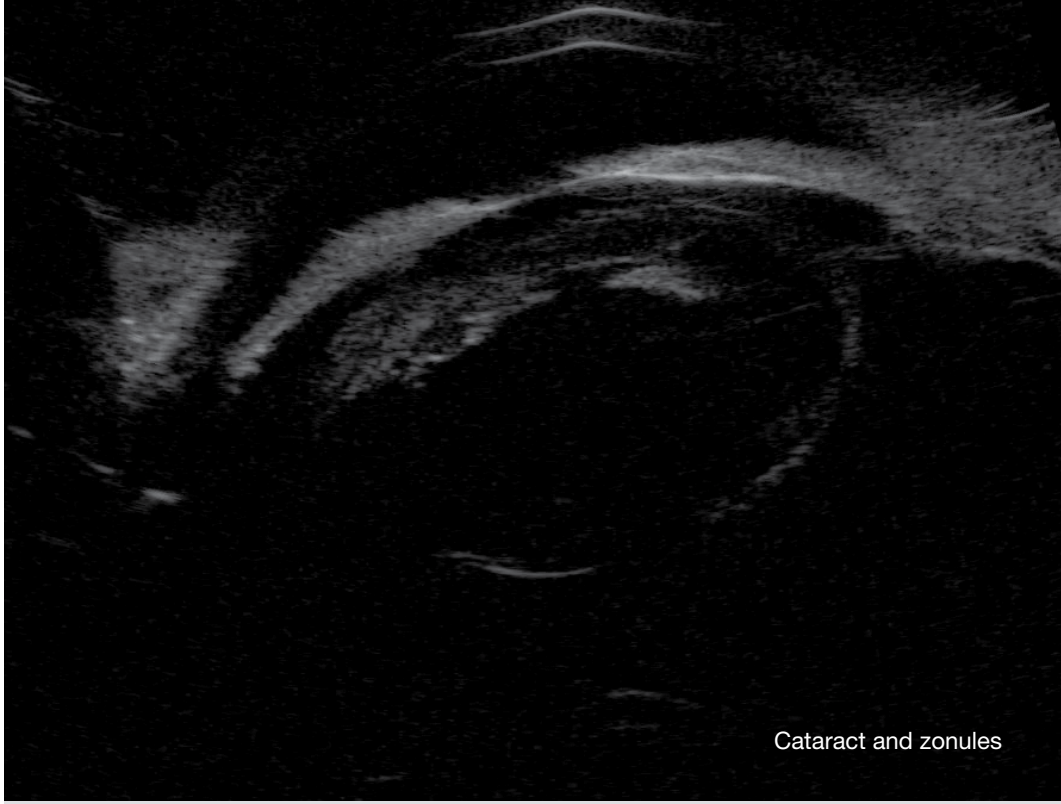

Retinal tear


Melanoma

Glaucoma

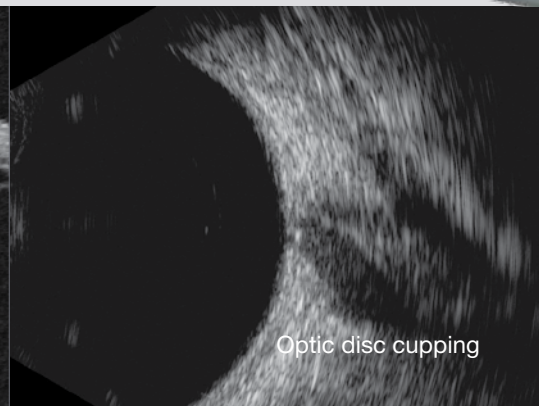
35 MHz UBM and 50 MHz UBM

With the option of 35 MHz and 50 MHz UBM modes Eye Prime™ enables you to choose the resolution and penetration appropriate for the application — and to view the entire anterior segment with less refraction.


Cataract and zonules

"Sophisticated algorithms filter signals to produce the best image quality possible"


Shallow anterior chamber


Optic disc cupping

B-Scan Modes

Movie Sequence – real time viewing and editing capability

12 MHz & 18 MHz Posterior Segment	35 MHz & 50 MHz Anterior Segment
Sealed probe	Detachable 35 MHZ or 50 MHz transducer
10 Frames-per-second image acquisition rate	10 Frames-per-second image acquisition rate
25-second movie loop	25-second movie loop
Adjustable transmit gain (0-100%)	Adjustable transmit gain (0-100%)
Adjustable receive gain (0-100%)	Adjustable receive gain (0-100%)
Adjustable contrast (0-100%)	Adjustable contrast (0-100%)
Scanning angle: 60 degrees	Scanning angle: 35 degrees
Image depth (displayed image): 40mm	Image depth (displayed image): 11.5-14mm
Focal range: Agile Focus™ in Real Time 10-30mm	Focal range depth: 12.8mm
TGC: Real TGC	
Unique presets for the 12 MHz & 18 MHz probes, offer ideal imaging for vitreous and retina applications	

A-Scan Mode

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

Diagnostic A-Scan

Two caliper measurements displayed in mm with variable velocities

Tissue sensitivity value stored in memory with update function

8 MHz parallel beam

Measurement accuracy: 50 microns inherent, 100 microns clinical

Benefits include

Unprecedented depth of field

Phased Array Annular Technology delivers crisp, high definition Imaging

Agile Focus™ for image optimization

Increased lateral resolution and high axial resolution

Entire eye visible in exceptional detail

Focus in 1 mm steps

Discern between finest ocular structures

Depth dependent real-time sensitive gain compensation (TGC) for excellent resolution

Elimination of retinal saturation whilst preserving vitreous detail and sensitivity

Prager Shells® for A-Scan Biometry

(Optional Accessories)
Prager Shells are available in:

15 mm Adult size

12.5 mm Pediatric size

Scleral Shells for 35 MHz & 50 MHz B-Scan

(Optional Accessories)
Scleral Shells are available in:

20 mm Adult size

18 mm Pediatric size

ClearScan® Bag for 35 MHz & 50 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.

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)

All-in-One Computer

Processor: Quad Core™ Intel® i7 (i.e. i& 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), 4k not recommended

Hard Drive: 512GB or larger

Eye One Console

Sleek box design with on/off power capability

Universal B-Scan and A-Scan probe holders

Console Size (excludes computer)
7 (w) x 9 (d) x 3 (h) inches (18 x 23 x 8 cm)

Weight <9 lbs (< 4 kg)
Footswitch control
(scan start; scan stop; scan save)

Electrical Requirements
Power supply: 10-240 VAC auto-raging
Frequency: 50/60 Hz
Input power: 50 VA

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

***Based on processors available today*

eye prime™

Find out how Eye Prime™ delivers unparalleled levels of accuracy, flexibility and image quality across a wide

Contact us now to schedule a demonstration

Ellex Medical Pty Ltd
3 Second Avenue
Mawson Lakes, SA, 5095 AUSTRALIA
+61 8 7074 8200

Ellex Inc. (USA)
7138 Shady Oak Road
Minneapolis, MN, 55344 USA
800 824 7444

Ellex Inc. (Japan)
Harumi Center Bldg 5F, 2-5-24
Harumi Chuo-ku
Tokyo 104-0053 JAPAN

Ellex France SARL
La Chaufferie – 555 chemin
du bois
69140 Rillieux la Pape
+81 3 5859 0470

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