

Aviso™

The Ultrasound Platform



A/B Scan & UBM



Aviso™

Quantel Medical's cutting edge technology in ultrasonography has brought constant and multiple innovations to ultrasound specialists worldwide since 1993.

Aviso A/B is a modular ultrasound platform that adapts to the varying demand of multispecialty practices. It offers the largest choice of probe frequencies in the market from conventional 10 MHz to high frequency anterior and posterior segment probes and covers all diagnostic needs.

Image quality first

Aviso A/B delivers high resolution digital imaging. Its high signal to noise ratio helps differentiate the finest structures at all frequencies.



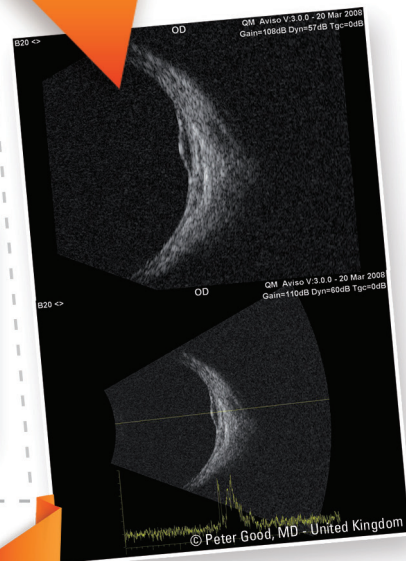
10 MHz



20 MHz



50 MHz



A constant high quality image standard is kept at any zoom factor used.

Powerful and user friendly interface

Whether with the Aviso A/B unique touchscreen remote or the computer terminal the examination is fast and easy:

- Seamless workflow for scan performing, viewing and editing,
- Eye diagram for easy probe labelling. Allows quicker and easier scan identification and interpretation,
- Unlimited number of scans per session,
- High performance post processing image tools such as measurement calipers, area, and markers for precise quantification,
- Still images and video always accessible for direct editing and analyzing,
- Automatic video recording of the last 40 seconds of examination for best scan selection and kinetic diagnosis,
- Full screen viewing of A & B scans,
- Various filters for tissue differentiation in B mode at all frequencies,
- Customizable multiple choice database search criteria.



DICOM & EMR compatible

EMR compatible, Aviso connects to any compatible software for data storage.

The DICOM option allows for an easy access to the patient work list and for the storage and retrieval of the exams performed with Aviso.

Unparalleled Linear Scanning UBM

Quantel Medical's proprietary magnetic 50 MHz with linear scanning Ultrasound Biomicroscope (UBM) probe technology

The 50 MHz probe reveals what you can not see with OCT alone, enabling the operator to visualize the structures located behind the iris such as the ciliary bodies, the processes and lens zonules.

Linear scanning offers the greatest signal intensity, providing superior anterior chamber image quality as the probe is always perpendicular with the tissue interface of interest.

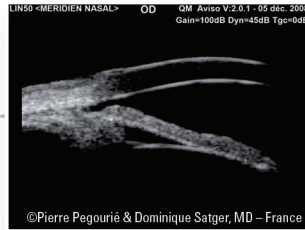
Controlled through magnetic field, the transducer scanning motion offers a faster scanning process and an increased image resolution. This technology allows a higher comfort of use with less vibration and a probe lighter in weight.

New covers such as ClearScan® by ESI make UBM technology easier to use and shorten the learning curve (ClearScan is a registered trademark of ESI, Inc.).

UBM linear technology is also available on the 25 MHz probe, designed for anterior chamber imaging and cataract specialists.



Glaucoma management



Plateau iris



Pupil Block



Juvenile open angle

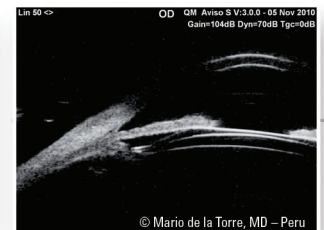
Cataract and refractive surgery



Angle to angle measurement /
Sulcus to sulcus measurement



IOL



Phakic IOL

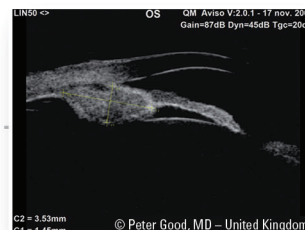
General examination



Tumors



Cyst



Anterior chamber hyphema,
dysgenesis & angle closure

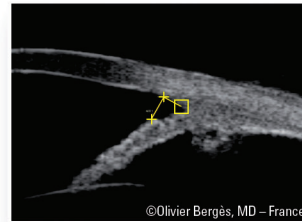


■ Glaucoma module: qualify and quantify

The Aviso A/B 50 MHz UBM probe is the tool of choice for studying the mechanisms and critical relationships between the iris, the lens and the ciliary body in glaucoma patients. It also helps to assess the efficacy of surgical procedures.

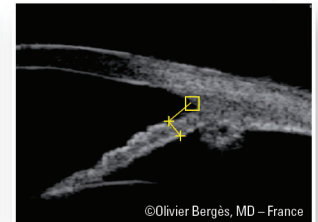
The Aviso A/B glaucoma module offers semi-automated quantifying tools for angle and iris measurements:

- AOD 500 & 750 (Angle Opening Distance)
- TIA (Trabecular Iris Angle)
- IT 750 & 2000 (Iris Thickness)
- ARA 500 & 750 (Angle Recess Area)
- TISA 500 & 750 (Trabecular Iris Space Area)
- LV (Lens Vault)



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AOD 500

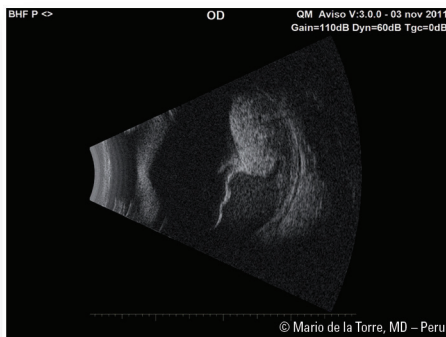


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IT 750

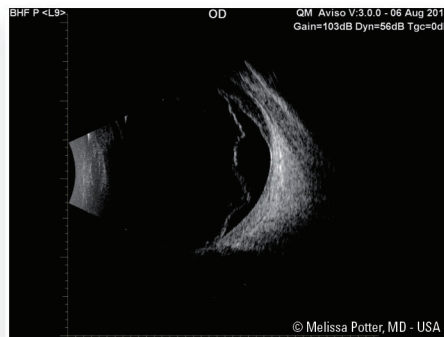
■ High-frequency 20 MHz for posterior segment imaging

The magnetic 20 MHz probe for retina is a unique diagnostic tool for high resolution posterior pole and retinal periphery imaging. The distinction between the retina, choroid and sclera as well as the vitreoretinal junction have never been finer.



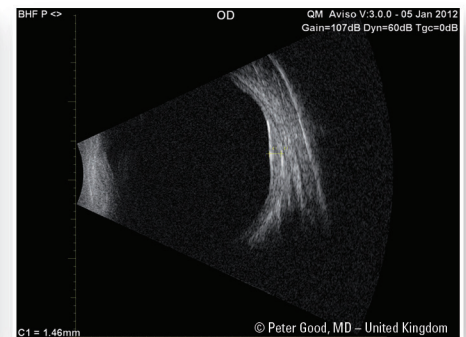
© Mario de la Torre, MD – Peru

Melanoma



© Melissa Potter, MD - USA

Retinal & choroidal detachments



© Peter Good, MD – United Kingdom

Choroidal naevus

■ Biometry module

Aviso A/B's biometry module allows axial length measurement of all eye types.

The set of IOL calculation formulas includes Shammass and Rosa and other formulas for challenging post-refractive cases.

A unique scleral spike recognition feature allows the automatic discrimination of misleading optic nerve scans.

The Probeam biometry probe (A probe with built-in laser pointer) makes the patient's cooperation easier for faster acquisition.

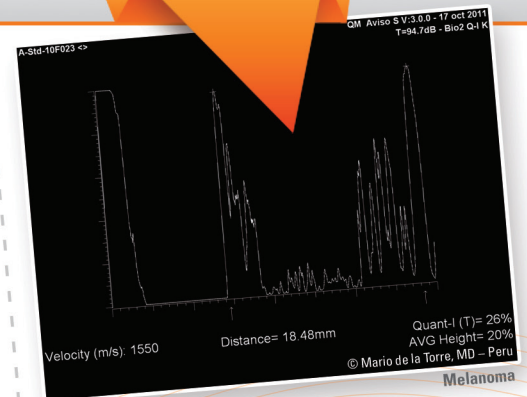
Automatic biometric readings obtained from a B mode image allow axial length measurements for difficult to measure long eyes or posterior staphyloma.

This technique provides the possibility to simultaneously view the posterior pole.

■ Standardized echography*

Quantel Medical is proud to manufacture the one and only standardized echography system that fully complies with Prof. Karl Ossoinig's requirements.

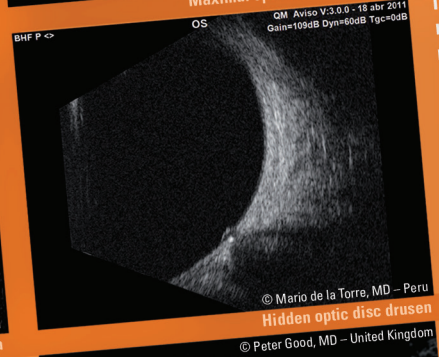
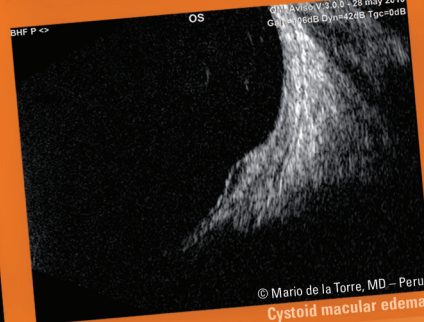
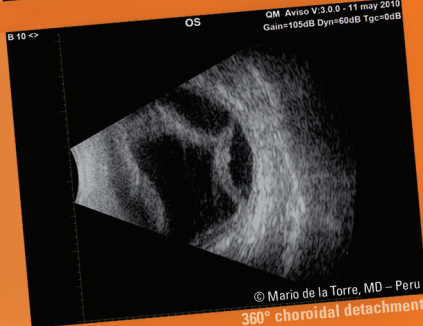
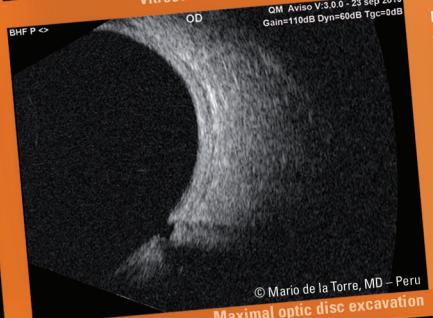
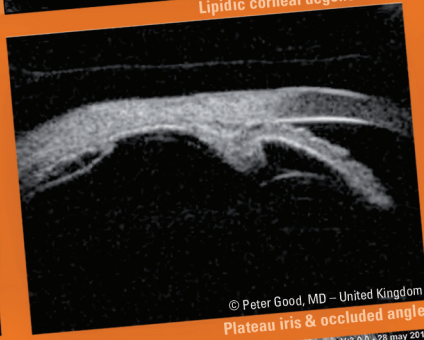
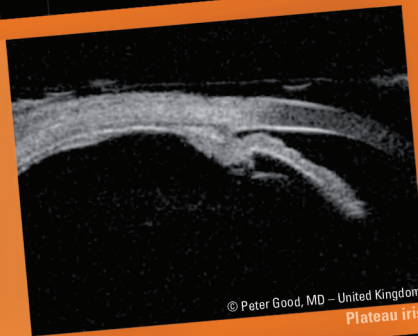
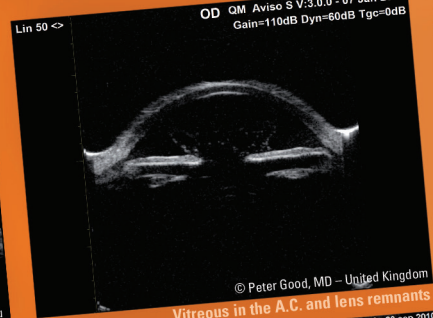
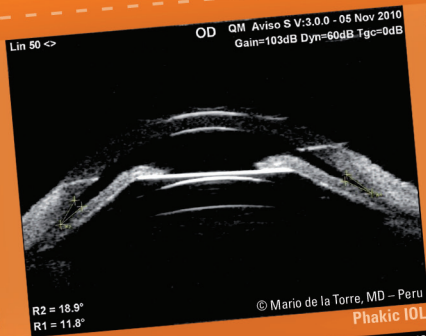
Aviso's standardized A mode offers unique tissues differentiation and characterization for optimal diagnosis of intraocular and orbital pathologies.



*Available on Aviso S only

Aviso™ your **Ultrasound** Platform of choice for:

Cataract and refractive surgery
 Corneal diseases
 Glaucoma management
 Vitreoretinal diseases
 Intraocular tumors
 Biometry and IOL calculation



Choroidal metastases

B SCAN MODES

Grey levels: 256
 Adjustable gain: 20 to 110 dB
 Time Gain Control (TGC): 0 to 30 dB
 Manual and synchronized dynamic range adjustment from 25 to 90 dB
 Unlimited storage capacity for still images and video sequences (up to 40 second duration)
 Image post-processing tools: Algorithmic & color image filters, calipers, areas, angles, markers, comments
 Glaucoma quantifying semi-automated tools with AOD 500 & 750, IT 750 & 2000, TIA, ARA 500 & 750, TISA 500 & 750, LV

POSTERIOR POLE EXAMINATION

Magnetic 10 MHz probe

Transducer frequency: 10 MHz
 Angle of exploration: 50°
 Depth of exploration: 20 to 60 mm (0.79" to 2.37")
 Focus: 21 to 25 mm (0.83" to 0.98")
 Axial resolution: 150 µm
 Lateral resolution: 300 µm
 Frame rate acquisition: up to 16 Hz

Magnetic 20 MHz probe for posterior pole*

Transducer frequency: 20 MHz
 Angle of exploration: 50°
 Focus: 24 to 26 mm (0.94" to 1.02")
 Axial resolution: 100 µm
 Lateral resolution: 250 µm
 Frame rate acquisition: up to 16 Hz

UBM & ANTERIOR SEGMENT EXAMINATION*

Magnetic 50 MHz UBM probe with linear scanning

Transducer frequency: 50 MHz
 Linear transducer movement: exploration width 16 mm (0.63")
 Focus: 9 to 11 mm (0.35" to 0.43")
 Axial resolution: 35 µm
 Lateral resolution: 60 µm

Linear 25 MHz UBM probe

Transducer frequency: 25 MHz
 Linear transducer movement: exploration width 16 mm (0.63")
 Focus: 11 to 13 mm (0.43" to 0.51")
 Axial resolution: 70 µm
 Lateral resolution: 120 µm

DATA MANAGEMENT

Built-in physician and patient database
 Exportation of still images and video sequences
 Customizable digital and printed reports
 DICOM* and/or EMR compatible
 Compatible with PC, USB video and DICOM printers

BIOMETRY

Adjustable gain: 20 to 110 dB
 Time Gain Control (TGC): 0 to 30 dB

11 MHz Probe

Transducer frequency: 11 MHz
 Tip diameter: 6 mm (0.23")
 Electronic resolution: 0.04 mm (0.002")
 Depth: 40/80 mm on 2048 points
 Contact and immersion techniques compatible
 Aiming beam: LED or laser pointer*

Axial length measurements

Ultrasound propagation velocity adjustable per segment (anterior chamber, lens, vitreous) and IOL and vitreous material

Built-in pattern recognition: phakic, aphakic, PMMA, acrylic and silicone material for pseudo-phakic eye types

Automatic calculation of standard deviation and average total length (series of 10 measurements)

Acquisition modes: automatic, auto + save, manual
 Automatic detection of scleral spike

IOL calculation

SRK-T, SRK 2, HOLLADAY, BINKHORST-II, HOFFER-Q, HAIGIS

Post-op refractive calculation:

- Pre-op and Post-op refraction, Pre-op and Post-op keratometry

- 6 different methods for keratometric correction and implant calculation:

History derived, refraction derived, contact lens method, Rosa regression, Shammass regression, Double K/SRK-T (Dr. Aramberri's formula)

7 values bracketed for desired ametropia for each IOL (IOL increment steps: 0.25D or 0.50D)

Simultaneous display of 4 different IOL calculations

GENERAL INFORMATION

Connection

Connectable to PC systems via USB-2 port operating under Windows 8 / Windows 7
 Dedicated software for communication driving between the acquisition module and computer

Images displayed on the computer monitor

Electrical requirements

Power supply: 100-120 / 200-240 Vac ± 10% single phase + grounding
 Frequency: 50 / 60 Hz
 Power: 25 VA max

Features

Overall dimensions: 19 cm (L) x 17 cm (W) x 19 cm (H); 7.5" (L) x 6.7" (W) x 7.5" (H)
 Touch screen dimensions: 8.6 cm (W) x 11.5 cm (H); 3.4" (W) x 4.5" (H)
 Weight: 1.5 kg (3.3 lb.)

* Option

Specifications are subject to change without notice.

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www.quantel-medical.com

Designed and Manufactured by **Quantel Medical in France**

Headquarters

Quantel Medical
 11, rue du Bois Joli - CS40015
 63808 Cournon d'Avvergne - FRANCE
 Tel: +33 (0)4 73 745 745
 Fax: +33 (0)4 73 745 700
 E-mail: contact@quantel-medical.fr

North America

Quantel USA
 49 Willow Peak Drive
 59718 Bozeman - USA
 Tel: +1 877 782 6835
 Fax: +1 406 522 2005
 E-mail: info@quantelmedical.com

Representative Offices

Thailand, Chiang Mai
 Brazil, Rio De Janeiro

