

# Aviso<sup>TM</sup>

## The Ultrasound Platform



**A/B Scan & UBM**



# Aviso<sup>TM</sup>

Quantel Medical's cutting edge technology in ultrasonography has brought constant and multiple innovations to ultrasound specialists worldwide since **1995**.

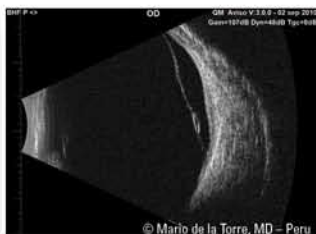
Aviso A/B is a modular ultrasound platform that adapts to the varying demand of multispecialty practices. It offers the largest choice of probe frequencies in the market from conventional 10 MHz to high frequency anterior and posterior segment probes and covers all diagnostic needs.

## 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.



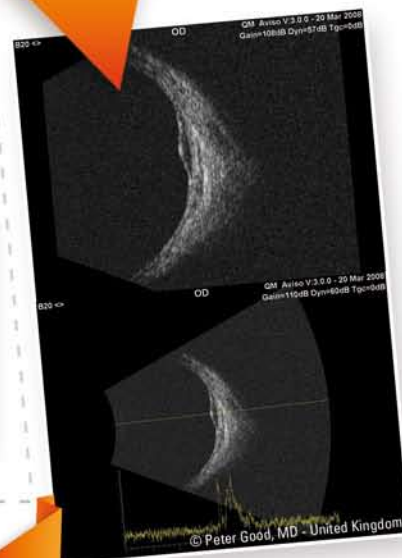
10 MHz



20 MHz



50 MHz

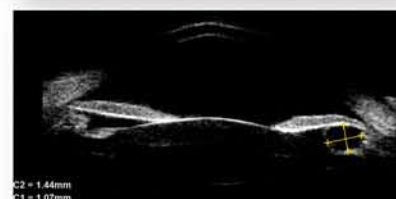
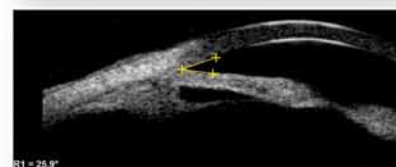
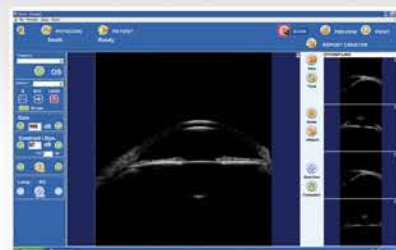


A constant high quality image standard is kept at any zoom factor used.

## 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,
- 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

The DICOM & EMR options allow a quick and easy network database up and downloading of all exams and patient information.

# Unparalleled Linear Scanning UBM

## ■ Quantel Medical's proprietary 50 MHz 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.

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

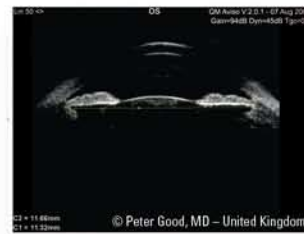


Pupil Block

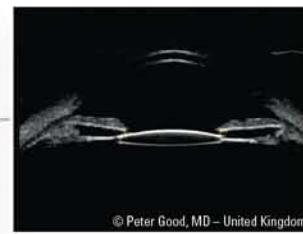


Juvenile open angle

## ■ Refractive surgery



Angle to angle measurement /  
Sulcus to sulcus measurement



IOL



Phakic IOL

## ■ General examination



Tumors



Cyst



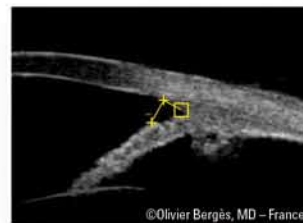
Anterior chamber hyphema,  
dysgenesis & angle closure

## ■ 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)



AOD 500



IT 750

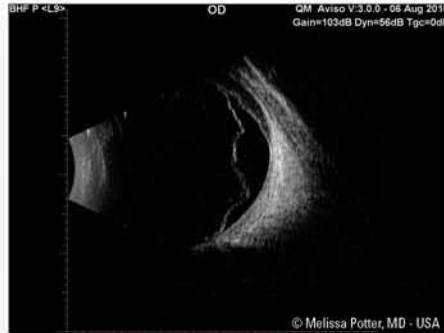


## High-frequency 20 MHz for posterior segment imaging

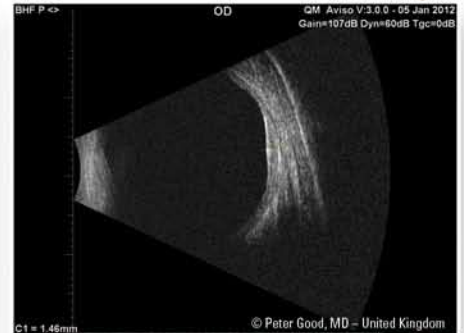
The 20 MHz probe for retina is a unique diagnostic tool for high resolution posterior pole and retinal periphery imaging. The distinction between the retina, choroid and sclera as well as the vitreoretinal junction have never been finer.



Melanoma



Retinal & choroidal detachments



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.

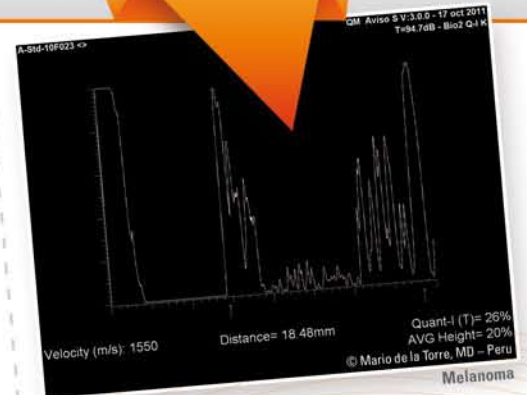
Automatic biometric readings obtained from a B mode image allow axial length measurements for difficult to measure long eyes or posterior staphyloma.

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.

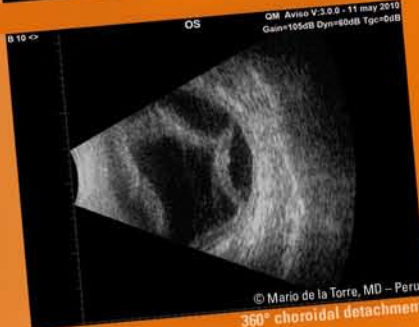
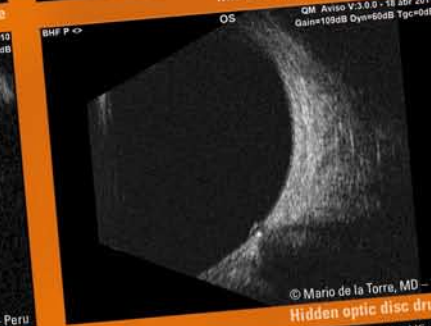
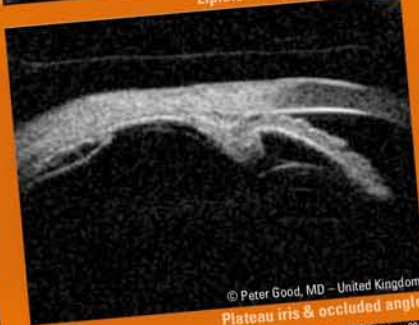
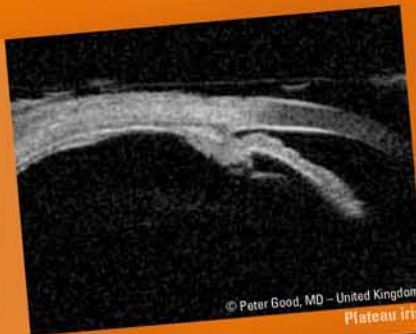
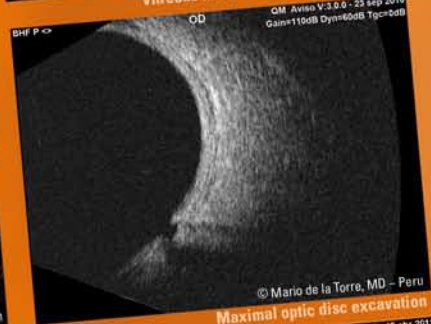
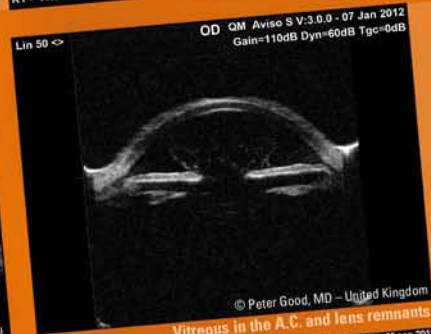
Aviso's standardized A mode offers unique tissues differentiation and characterization for optimal diagnosis of intraocular and orbital pathologies.



\*Available on Aviso S only

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

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



### B SCAN MODES

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 tools with ADD 500 & 750, IT 750 & 2000, TIA

### POSTERIOR POLE EXAMINATION

#### 10 MHz probe

Transducer frequency: 10 MHz  
 Angle of exploration: 50°  
 Depth of exploration: 20 to 60 mm (0.79" to 2.37")  
 Focus: 24 to 26 mm (0.94" to 1.02")  
 Axial resolution: 200 µm  
 Lateral resolution: 600 µm

#### 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

### UBM & ANTERIOR SEGMENT EXAMINATION\*

#### Linear 50 MHz UBM probe

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  
 EDR\* (Echo Data Reader) compatible for data transfer from other Quantel Medical ultrasound system  
 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, Shammas 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 7 (32 & 64 bits)  
 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.

[www.quantel-medical.com](http://www.quantel-medical.com)

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