• diagnosis of Graves' disease.
• diagnosis of retinal/vitreous membrane detachment.

UBM technology makes it possible facilitated by the ProBeam™ probe and new signal processing for enhanced resolution and better cooperation from the patient during examination.

Malignant melanoma of the Corneal image of scarring beneath the epithelium*

Binocular biomicroscopy and UBM biometry.

Numerous enhancements that make it better for the glaucoma examination and understand the mechanisms of available All the semi-automatic quantification tools are:

• acquisition and comfort of use,
• electromagnetic technology to increase speed
• UBM technology

Magnetic 50 MHz UBM probe with linear scanning:

- Linear transducer motion to optimise image quality,
- Accelerometer for probe localization
- Lateral resolution: 60 µm
- Axial resolution: 35 µm
- Frame rate acquisition: up to 16 Hz
- Depth of field: 12 mm (0.47'')
- Angle of exploration: 50°
- Transducer frequency: 20 MHz – Annular 5 rings
- Focus: 22 mm (0.87'')
- Depth of exploration: 60 mm (2.36'')
- Angle of exploration: 50°
- Transducer frequency: 15 MHz
- Magnetic 15 MHz probe
- Cineloop in B mode: up to 400 images
- Shammas regression, Double K/SRK-T (Dr. Aramberri’s formula)

Image post-processing tools: filters (algorithm and colors), calipers, adjustable time gain control (TGC): 0 to 30 dB, adjustable gain: 20 to 110 dB, grey levels: 256

Automatic detection of scleral spike

Built-in pattern recognition: Phakic, Dense/Long, Aphakic, PMMA, lens, vitreous) and IOL and vitreous material

Ultrasound propagation velocity adjustable per segment (anterior chamber, axial length measurements

Contact and immersion techniques compatible

Aiming beam: LED or laser beam ProBeam™

Depth of exploration: 40/80 mm (1.57''/2.36'') on 2048 points

Simultaneous display of 4 different IOL calculations:

- 10 measurements)
- Automatic calculation of standard deviation and average total length (series of 10 measurements)
- Automatic detection of scleral spike
- Built-in pattern recognition: Phakic, Dense/Long, Aphakic, PMMA, lens, vitreous) and IOL and vitreous material

Ultrasound propagation velocity adjustable per segment (anterior chamber, axial length measurements

Contact and immersion techniques compatible

Aiming beam: LED or laser beam ProBeam™

Depth of exploration: 40/80 mm (1.57''/2.36'') on 2048 points

Simultaneous display of 4 different IOL calculations:

- HOLLADAY, BINKHORST-II, HOFFER-Q, HAIGIS
- 10 measurements)
- Automatic calculation of standard deviation and average total length (series of 10 measurements)
- Automatic detection of scleral spike
- Built-in pattern recognition: Phakic, Dense/Long, Aphakic, PMMA, lens, vitreous) and IOL and vitreous material

Ultrasound propagation velocity adjustable per segment (anterior chamber, axial length measurements

Contact and immersion techniques compatible

Aiming beam: LED or laser beam ProBeam™

Depth of exploration: 40/80 mm (1.57''/2.36'') on 2048 points

Simultaneous display of 4 different IOL calculations:

- SRK-T, SRK 2, HOLLADAY, BINKHORST-II, HOFFER-Q, HAIGIS
- 10 measurements)
- Automatic calculation of standard deviation and average total length (series of 10 measurements)
- Automatic detection of scleral spike
- Built-in pattern recognition: Phakic, Dense/Long, Aphakic, PMMA, lens, vitreous) and IOL and vitreous material

Ultrasound propagation velocity adjustable per segment (anterior chamber, axial length measurements

Contact and immersion techniques compatible

Aiming beam: LED or laser beam ProBeam™

Depth of exploration: 40/80 mm (1.57''/2.36'') on 2048 points

Simultaneous display of 4 different IOL calculations:

- Shammas regression, Double K/SRK-T (Dr. Aramberri’s formula)
- History derived, refraction derived, contact lens method, Rosa regression,
- - 6 different methods for keratometric correction and implant calculation:
- - 0.25D or 0.50D)
NEW ANNULAR IMAGING
Quantel Medical has made a decisive leap forward with a new 5 ring annular technology on a 20 MHz probe.

The principle is to emit alternating ultrasounds by 5 concentric transducers located in a single probe.

This technology:
- increases depth of field by 70%,
- increases lateral resolution by 27%,
- maintains high axial resolution.

The images thus obtained are spectacular as the entire eye is now visible with an exceptional level of detail.

A SINGLE MULTIFUNCTION PROBE
The annular technology almost doubles the depth of field: the new 20 MHz annular probe increases the depth of field by 70% and makes it possible to simultaneously examine pathologies of the vitreous, the retina and the orbit without compromising on image quality.

A/B/S/UBM Ultrasound Platform

- Increases depth of field by 70%.
- Increases lateral resolution by 27%.
- Maintains high axial resolution.

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A SINGLE MULTIFUNCTION PROBE
The annular technology almost doubles the depth of field: the new 20 MHz annular probe increases the depth of field by 70% and makes it possible to simultaneously examine pathologies of the vitreous, the retina and the orbit without compromising on image quality.
**NEW ANNULAR IMAGING**

**SINGLE MULTIFUNCTION PROBE**

- Vitreo-retinal traction*
- Posterior lens capsule*
- Weiss ring*
- With haemorrhaging*
- Detached retina

The annular technology almost doubles the depth of field:

- 5 concentric transducers located in a single probe.
- Quantel Medical has made a decisive leap forward with a new 5 ring annular technology on a 20 MHz probe.
- We compromise on image quality.

Pathologies of the vitreous, the retina, and the orbit are now visible with an exceptional level of detail.

The images thus obtained are spectacular as the entire eye is now visible.

This technology:

- Increases depth of field by 70%.
- Maintains high axial resolution.
- Increases lateral resolution by 27%.
- Increases image quality.

This helps the operator to identify the area of examination more rapidly.

**INTEGRATED MOTION SENSOR**

The B15, B20 and UBM probes are equipped with a position sensor that provides real-time essential informations such as:

- The position of the probe on the eye,
- The direction of the ultrasound beam.
- The position of the probe on the eye,
- The direction of the ultrasound beam.

This helps the operator to identify the area of examination more rapidly.

**REDESIGNED USER INTERFACE**

The new ABSolu’s user interface is intuitive and easy to use. It shortens the learning curve and makes it more fun to use.

- Broad palette of measuring tools.
- Display in B+B mode for easy comparisons of examinations.
- Fully configurable patient report generator.

ABSolou is also EMR compatible and connects to most data transfer and storage applications.

**DICOM IMAGING**

A world premiere in ophthalmic ultrasound: new Full HD screen with greyscale display compliant with section 14 of the DICOM standard.

- Constant and standardised image quality.
- Reliable image interpretation.

**ABSWITCH. 8 FUNCTION WIRELESS FOOTSWITCH**

- Adjustable Gain (+ and –).
- Freeze/unfreeze image.
- Viewing of Cineloop images (forward and reverse function).
- Images saved in the patient’s file.
- Tag on the Cineloop.

**ABSolu is also EMR compatible and connects to most data transfer and storage applications.**

* © Peter Good, MD, Birmingham and Midland Eye Center (Birmingham, UK).
**NEW UBM IMAGING**

UBM technology makes it possible to diagnose the structures behind the iris, that other technologies cannot visualize. Quantel Medical now offers optimised UBM technology:

- new signal processing for enhanced resolution and penetration,
- linear transducer motion to optimise image quality,
- electromagnetic technology to increase speed acquisition and comfort of use,
- Clearscan™ compatible: rapid and comfortable examination.

**GLAUCOMA MODULE**

All the semi-automatic quantification tools are available on ABSolu (AOD, TIA, IT, ARA, LV) and facilitate examination and understand the mechanisms of the iris, the lens and ciliary bodies in patients with glaucoma.

**STANDARDISED ULTRASOUND**

With numerous enhancements that make it easier and more intuitive to use, ABSolu remains the only ultrasound platform that meets Professor Karl Ossoinig’s criteria.

The S mode allows for:
- diagnosis of tumour lesions,
- diagnosis of retinal/vitreous membrane detachment,
- diagnosis of Graves’ disease.

**A-SCAN BIOMETRY AND B MODE BIOMETRY**

The A-scan biometry and B mode biometry modules facilitate measurement of the axial length in eyes of all types:
- moderate to dense cataract,
- long eyes or posterior staphylomae.

This measurement is facilitated by the ProBeam™ probe (biometric probe with on-board laser) which makes for better cooperation from the patient during examination.
The criteria more intuitive to use with standardised glaucoma examination.

All the semi-automatic quantification tools are available:
- Accelerometer for probe localization
- Frame rate acquisition: up to 16 Hz
- Lateral resolution: 400 µm
- Axial resolution: up to 16 Hz
- Accelerometer for probe localization

UBM technology makes it possible to diagnose the structures behind the iris, ciliary bodies, and long eyes or posterior staphylomae. Quantel Medical now offers UBM technology which cannot visualize. Quantel Medical offers the Clearscan family of products.

**NEW GLAUCOMA EXAMINATION TECHNOLOGY**

**UBM & ANTERIOR SEGMENT EXAMINATION**

Magnetic 50 MHz UBM probe with linear scanning

- Transducer frequency: 50 MHz
- Linear transducer movement: 16 mm (0.63")
- Focus: 10 mm (0.39")
- Axial resolution: 35 µm
- Lateral resolution: 60 µm

Accelerometer for probe localization

**STANDARDIZED A MODE**

Digitally programmed 5-shaped amplifier characteristics and comprehensive design criteria for standardised echography and tissue differentiation according to Karl C. Ossoinig MD. Automatic tissue sensitivity determination with specific gain value recorded.

**BIOMETRY**

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

**11 MHz Probe**

- Transducer frequency: 11 MHz
- Tip diameter: 7 mm (0.28")
- Electronic resolution: 0.04 mm (0.0016")
- Depth of exploration: 40/80 mm (1.57"/2.36") on 2048 points
- Aiming beam: LED or laser beam ProBeam™
- Contact and immersion techniques compatible

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

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

Simultaneous display of 4 different IOL calculations

**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
- Storage capacity: no restriction of number of exams per patient
- No restriction of storage in patient file

**Electrical requirements**

- Power supply: 80-260 Vac
- Frequency: 47/63 Hz
- Power: 60 VA max

**Features**

- Overall dimensions: Height 445 mm (17.5") - Depth 285 mm (11.22") - Width 545 mm (21.6") (W/O probe holders) and 840 mm (33.07") with all probes
- Screen dimensions: 21" inch HD (1920*1080p)
- Weight: 10.6 kg (23.37 lbs) (w/o probes)

Specifications are subject to change without notice.

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