**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

**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.

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

**INTEGRATED MOTION SENSOR**

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

- 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.

**THIS TECHNOLOGY IS PATENTED AND EXCLUSIVE TO QUANTEL MEDICAL.**

**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/unfreez image.
- Viewing of Cineloop images (forward and reverse function).
- Images saved in the patient’s file.
- Tag on the Cineloop.
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.
Technological Specifications

**B Scan Modes**
- Grey levels: 256
- Adjustable gain: 20 to 110 dB
- Adjustable Time Gain Control (TGC): 0 to 30 dB
- Adjustable dynamic range: adjustment from 25 to 90 dB (for 15 and 50 MHz - 80 dB for 20 MHz SA)
- Image post-processing tools: filters (algorithm and colors), calipers, areas, angles, markers, comments
- Glaucoma semi-automated tools: AOD 500 & 750, TIA, IT 750 & 2000, ARA 500 & 750, TISA 500 & 750, LV
- Cineloop in B mode: up to 400 images

**Posterior Pole Examination**
- Magnetic 15 MHz probe
  - Transducer frequency: 15 MHz
  - Angle of exploration: 50°
  - Depth of exploration: 60 mm (2.36")
  - Focus: 24 mm (0.94")
  - Depth of field: 12 mm (0.47")
  - Axial resolution: 115 µm
  - Lateral resolution: 400 µm
  - Frame rate acquisition: up to 16 Hz
  - Accelerometer for probe localization
- Magnetic Annular 5 rings 20 MHz probe
  - Transducer frequency: 20 MHz – Annular 5 rings
  - Angle of exploration: 50°
  - Depth of exploration: 60 mm (2.36")
  - Focus: 22 mm (0.87")
  - Depth of field: 20 mm (0.79")
  - Axial resolution: 80 µm
  - Lateral resolution: 200 µm
  - Frame rate acquisition: up to 16 Hz
  - Accelerometer for probe localization

**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 S-shaped amplifier characteristics and comprehensive design criteria for standardized echography and tissue differentiation according to Karl C. Ossoinig MD. Automatic tissue sensitivity determination with specific gain value recorded.
- Diagnosis functions featuring: Lesion Q1, Retina A1, Retina G2, muscular profile with Optic nerve measurements
- Probe Frequency: 8 MHz parallel beam
- Cineloop in A mode: up to 400 images
- Depth: orbit 80 µs, eye 40 µs, zoom 20 µs
- Distance measurement between 2 gates with adjustable velocity

**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

**Axial Length Measurements**
- Ultrasound propagation velocity adjustable per segment (anterior chamber, lens, vitreous) and IOL and vitreous material
- Built-in pattern recognition: Phakic, Dense/Lense, Aphaic, PMMA, Acrylic and silicon for pseudo-phakic eyes
- Acquisition modes: Automatic, Auto-save, manual
- Automatic detection of scleral spike
- 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 (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

**General Information**
- Connection 5 USB ports (1 on the base – 4 on the bottom of the screen)
- HDMI and Ethernet outlets
- Windows 10 embedded exploitation system
- HDD 1TB – SSD128 Gb – RAM 16 Gb
- No restriction of storage in patient file

**Electrical Requirements**
- Power supply: 80-264 Vac
- Frequency: 47/63 Hz
- Power: 60 VA max

**Features**
- Overall dimensions: Height 445 mm (17.51") - Depth 285 mm (11.22")
- Width 545 mm (21.46") (W/O probe holders) and 800 mm (31.5") (W/O probe holders)
- Electronic resolution: 0.04 mm (0.0016")
- Tip diameter: 7 mm (0.28")
- Depth of field: 12 mm (0.47")
- Screen dimensions: 21" inch HD (1920*1080p)
- Weight: 10.6 kg (23.37 lb) (w/o probes)

**Technical Specifications**
www.quantel-medical.com
A product by Quantel Medical, France

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