



IMAGING  
EXCELLENCE



A/B/S/UBM Ultrasound Platform

# ABSolu™

## ■ 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**.

Posterior lens capsule\*

Detached retina with haemorrhaging\*

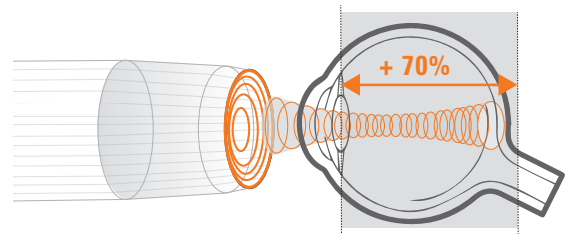
Vitreo-retinal traction\*

Weiss ring\*

\* Peter Good, MD, Birmingham and Midland Eye Center (Birmingham, UK).

## ■ 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.

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

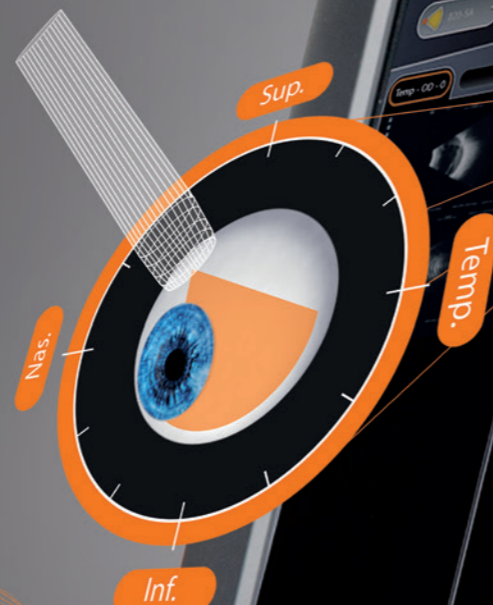
## INTEGRATED MOTION SENSOR

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

1080p  
FULLHD

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.



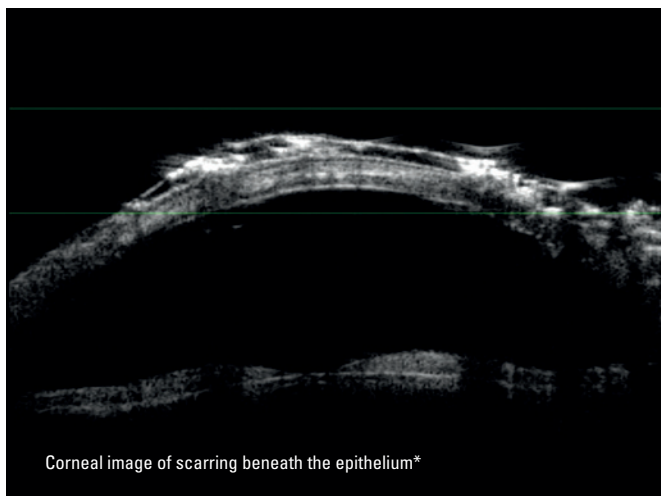
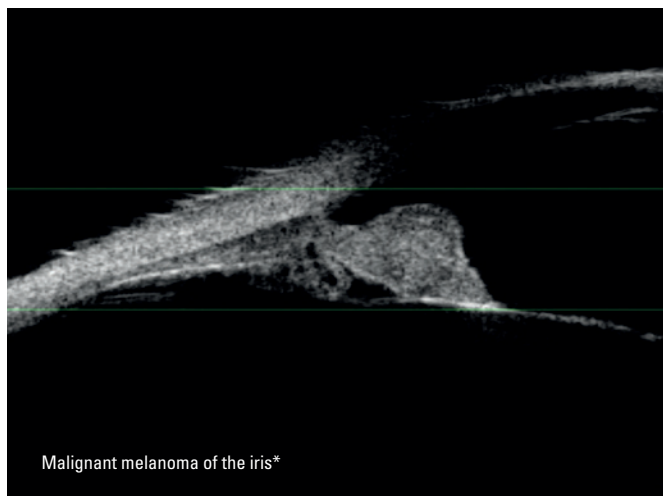
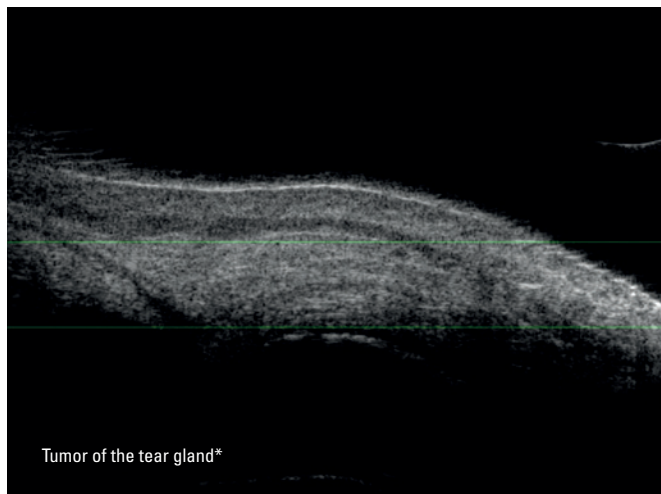
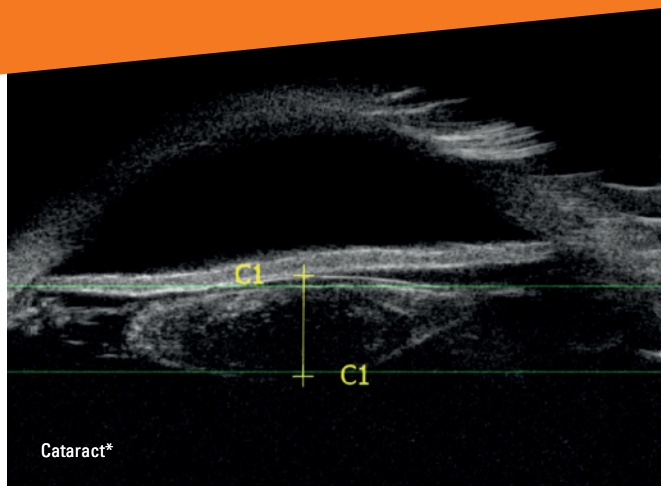
## ■ NEW UBM IMAGING

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.



\*© Peter Good, MD, Birmingham and Midland Eye Center (Birmingham, UK).

## ■ 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.

# TECHNICAL 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 5A)
Image post-processing tools:	filters (algorithm and colors), calipers, areas, angles, markers, comments
Glaucoma quantifying 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 Q2, 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/Long, Aphakic, 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

*\*in options*

## 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 840 mm (33.07") with all probes

Screen dimensions: 21" inch HD (1920\*1080p)

Weight: 10.6 kg (23.37 lb) (w/o probes)

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

A product by **Quantel Medical, France**

*Specifications are subject to change without notice.*

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### Headquarters

Quantel Medical  
11, rue du Bois Joli - CS40015  
63808 Cournon d'Auvergne – FRANCE  
Tel: +33 (0)4 73 745 745  
Fax: +33 (0)4 73 745 700  
Email: [contact@quantel-medical.fr](mailto:contact@quantel-medical.fr)

### North America

Quantel Medical USA  
2313 Ridge Road Suite 105A  
Rockwall, TX 75087 – USA  
Tel: +1 877 782 6835  
Fax: +1 406 522 2005  
Email: [info@quantelmedical.com](mailto:info@quantelmedical.com)

### Poland

Quantel Medical  
ul. Raclawicka 93  
02-634 Warszawa  
Tel: +48 22 5210111  
Email: [info@quantel-medical.pl](mailto:info@quantel-medical.pl)

### Representative Offices

Thailand, Chiang Mai  
Brazil, Rio De Janeiro

