UltraiQ

Automated ultrasound QA in 5 minutes

Scan the phantom

Make ultrasound images of the phantom set using the transducer that you would like to measure.

Processing in UltraiQ

The ultrasound image can be transferred for processing via your preferred method (USB/PACS).

Clear reports

The measurement values are displayed as clear web reports in iQMonitor.

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Quick QA with UltraiQ

UltraiQ offers users the tools to perform quick and easy QA on their transducers. After you have acquired images of the UltraiQ phantom set, the images may be transferred to UltraiQ via USB or PACS. Using the intuitive interface, measurements can be completed substantially faster as compared to manual measurements. A full test of a transducer using UltraiQ takes 5 minutes. The administrative details of your ultrasound equipment can be imported automatically*. Optionally, the UltraiQ measurement database may be stored on a server. This workflow makes it possible to work in the same database with multiple users.

*Dependent on your equipment management system

Automatic vs. Manual measurements

To date, three independent studies have been conducted on the reproducibility of the UltraiQ measurements. These studies have all shown that the reproducibility of the measurements is excellent (0 to 3% intra user variance)[1, 2, 3]. Without the use of software, the variance of the measurements is up to 22,4%.

Phantoms

UltraiQ supports the following phantoms:

Phantoms that support fully automatic measurements

- Cablon General Purpose phantom
- Cablon Uniformity phantom
- CIRS 551
- Gammex (Sono TE™, Sono 410 line)

Phantoms that support semi-automatic measurements

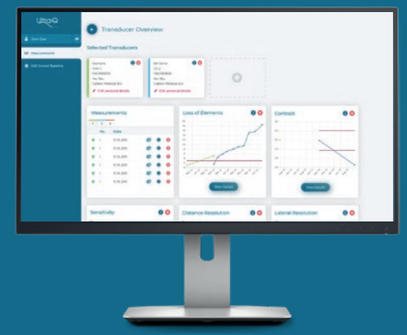
- ATS 539, 549, 550, 551 and 570
- CIRS 040GSE, 040GS and 054GS
- Gammex Sono410, 403, 403GS, 405GS and 405GSX
- Kyoto Kagaku N-365

1: Long (2016): AIUM E-poster # 2370045: Evaluation of UltraiQ software for objective ultrasound image quality assessment

2: Pelk (2015): https://prezi.com/1wirh75hdr31/kwaliteitscontrole-echografie-het-inzicht-in-verbetering/

3: Gape (2017), Error estimation manual vs automated QA (for your perusal)

Clear overviews in iQMonitor



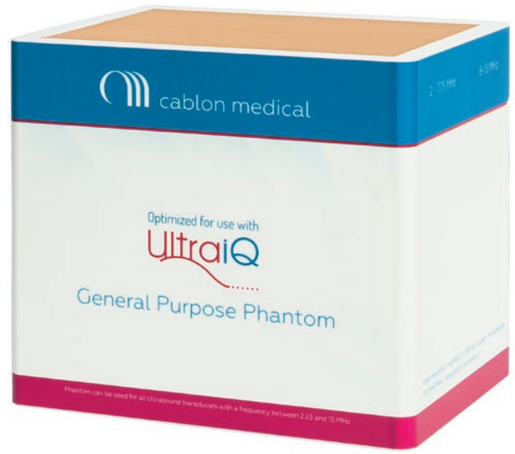
All stored measurements can be found in iQMonitor. The measured transducers are presented in one overview. You can view the measurement values of each transducer in a trend analysis, as well as compare multiple transducers to each other. This way you can track the penetration depth or contrast of your transducer over time. iQMonitor supports user-defined tolerance values. When these are configured, traffic lights will indicate whether your transducer is in, or out of tolerance.

Automatic measurements with UltraiQ

- Loss of Elements
- Signal to Noise Ratio (SNR)
- Contrast / Dynamic range
- Axial resolution
- Lateral resolution
- Caliper accuracy
- Penetration Depth

Extra productivity with UltraiQ phantoms

Our phantoms are optimised for use with software. Both the UltraiQ Uniformity phantom and the General Purpose phantom are compatible with any transducer (2,25-15 MHz). When using a third party general purpose phantom, three to four images are necessary to capture all targets. When using the UltraiQ general purpose phantom only one image is needed to capture all targets!



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Would you like to know more about UltraiQ?
Visit cablon.nl/ultraiq

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