General Purpose Multi-Tissue Ultrasound Phantom

The standard for ultrasound quality assurance
Two Phantoms in one case

The CIRS series of ultrasound phantoms, unlike human subjects or random scannable materials, offers a reliable medium which contains specific, known test objects for repeatable qualitative assessment of ultrasound scanner performance over time.

This phantom is constructed from the patented solid elastic material, Zerdine™.[1] Zerdine™, unlike other phantom materials on the market, is not affected by changes in temperature. It can be subjected to boiling or freezing conditions without sustaining significant damage. Zerdine™ is also more elastic than other materials and allows more pressure to be applied to the scanning surface without subsequent damage to the material. At normal or room temperatures the Zerdine™ material found in the Model 40 will accurately simulate the ultrasound characteristics found in human liver tissue. The Model 40 was designed to allow for assessment of uniformity, axial and lateral resolution, depth calibration, dead zone measurement, and registration within two different backgrounds of 0.5 and 0.7 dB/cm/MHz.

Model 040

Complies with AIUM Standard for Quality Assurance.

[1]US PAT# 5196343

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Model 40 Specifications:

MATERIAL: Zerdine™(1), solid elastic water-based polymer
Freezing Point: 0^0 C
Melting Point: Above 100^0 C

ATTENUATION COEFFICIENT:
0.5 dB/cm/MHz
0.7 dB/cm/MHz

SPEED OF SOUND:
1540 m/s

SCANNING WELL:
1cm deep

SCANNING MEMBRANE:
Saran

TARGETS:
Material: Nylon Monofilament
Wire Diameter: 0.1mm

VERTICAL PLANE TARGETS
Number of Groups: 1
Number of Targets Per Group: 16
Depth Range: 18cm
Spacing: 1cm

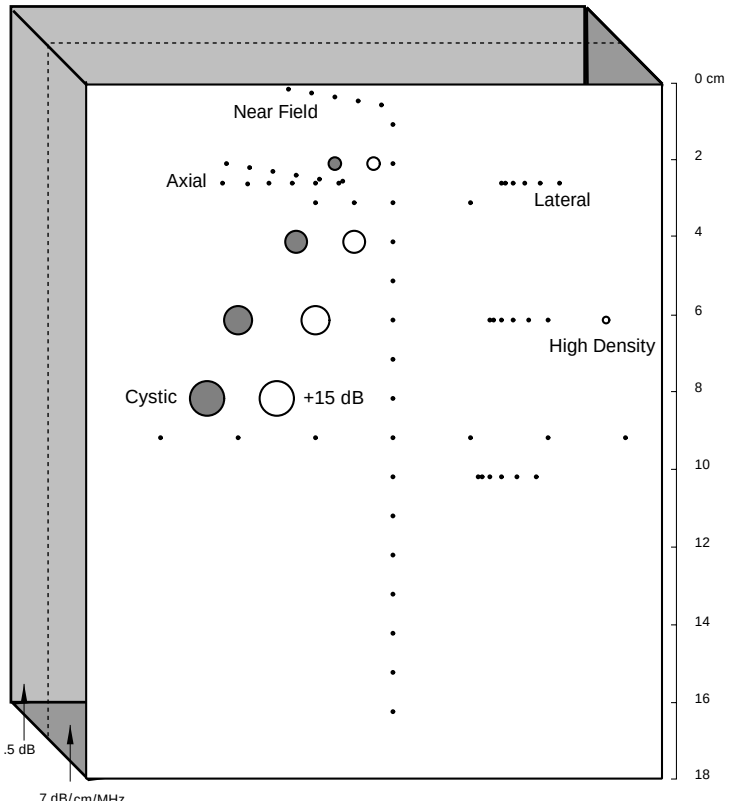
HORIZONTAL PLANE TARGETS
Number of Groups: 2
Number of Targets: 4 and 7
Depth Range: 3cm and 9cm
Spacing: 1cm and 2cm

RESOLUTION TARGETS:
Number of Arrays: 4
Depths: 2.5cm, 6cm and 10cm
Axial Intervals: 0.5, 1 , 2, 3, 4, and 5mm
Horizontal Intervals: 1, 2, 3, 4, and 5mm

CYSTIC TARGETS:
Number of Targets: 4
Diameter of Targets: 2, 4, 6 and 8mm
Depth of Targets: 2, 4, 6, and 8cm
Attenuation: <0.07dB/cm/MHz
Speed: 1540 m/s
Contrast: anechoic

HIGH CONTRAST TARGETS:
Number of Targets: 4
Diameter of Targets: 2, 4, 6 and 8mm
Depth of Targets 2, 4, 6, and 8cm
Attenuation: 1.0 dB/cm/MHz
Speed: 1540 m/s
Contrast: +15 dB v.s. background

HIGH DENSITY TARGET:
Material: PMMA
Diameter: 1/16"
Depth: 6cm



Phantom comes with detachable scanning wells to accommodate large sector probes and small endocavity probes. It is packaged in a hermetically sealed, air tight, rugged carrying case.