



Precision Small Parts Grey Scale Phantoms

GAMMEX 404GS LE AND 404 LE

The Precision Small Parts Grey Scale Phantom 404GS LE provides advanced technology for measuring image quality of small parts and intra-cavity ultrasound scanning systems. With added grey scale targets this small parts phantom also measures contrast, temporal resolution and system linearity. *The 404 LE has the same general target layout and specifications as the 404GS LE but does not include grey scale targets.*

This phantom incorporates our new Tissue Mimicking (TM) gel which provides a smoother background texture and a new composite film scanning surface that has

improved transmission properties so more of the ultrasonic beam can be transmitted and received.

Unique to the Gammex 404GS LE are closely spaced pin targets ideal for testing a range of high frequency transducers. Resolution patterns and all vertical and horizontal targets are made of 0.1 mm nylon fibers for better detail definition and spatial resolution.

Three grey scale targets of -6 dB, +6 dB and high scatter relative to the background material are included in the 404GS LE.

continued





GAMMEX 404GS LE AND 404 LE

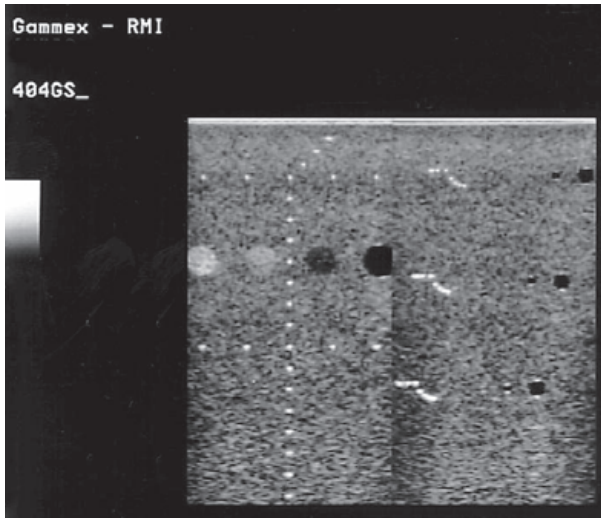
ULTRASOUND

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The Gammex 404GS LE provides the sonographer with the following features:

- Axial and lateral resolution targets at 1, 3.5 and 6 cm for precise resolution measurements
- Low scatter cysts of 1, 2, 4 and 7 mm diameters to evaluate system noise and distortion
- 7 mm grey scale targets of -6 dB, +6 dB and high scatter relative to background material
- Attenuation coefficients of 0.5 or 0.7 dB/cm/MHz
- Convertible water dam for gel or water coupled scanning
- Integral cover to protect scanning surface
- Durable ergonomic design for handling ease

Optional accessories for the Gammex line of Ultrasound phantoms include Soft Foam-Lined Carrying Case, Rigid Case, or the Precision Ultrasound Transducer Guide.



This ultrasound image demonstrates a linear scan of the Precision Small Parts Grey Scale Phantom 404GS LE in split screen mode.

SPECIFICATIONS

High Resolution Tissue Mimicking Gel

Speed of sound . . . 1540 ±10 m/s at 22° C
 Attenuation 0.5 or 0.7 ±0.05 dB/cm/MHz

Targets

Anechoic Cysts

Diameters 1, 2, 4 and 7 mm
 Speed of sound . . . 1540 ±10 m/s at 22° C
 Attenuation 0.05 ±0.01 dB/cm/MHz

Grey Scale Targets

Contrast. -6, +6 and +12 dB relative to background
 Diameter 7 mm
 Speed of sound . . . 1540 ±10 m/s at 22° C
 Attenuation 0.5 or 0.7 ±0.05 dB/cm/MHz

Pin Targets

Diameter of nylon lines 0.1 mm (0.004 in)
 Vertical spacing. . . 5 mm at 1 to 9 cm deep
 Horizontal spacing 10 mm at 1 and 5 cm deep

Construction

Scanning surface Composite Film
 Walls Extruded ABS
 Dimensions 15.2x8.25x18.5 cm (6x3.25x7.25 in)
 Weight 1.8 kg (4 lbs)
 All acoustic measurements at 4.5 MHz, 22° C