

General & Small Parts Phantom

Model ATS 549



The Model 549 General & Small Parts phantom provides a unique design to optimize testing over the full range of diagnostic imaging probes (2 MHz to 18 MHz). A 30cm depth of field stretches the penetration depth of lower-frequency probes. Small features in the first 6 cm test the resolution of small parts probes. The scanning wells when filled with water provide an ideal means to evaluate endoscopic probes. Simply lie the active area of the transducer onto the surface of the phantom. The procedure is the same as for any standard linear transducer.

The Model 549 is designed with a combination of monofilament line targets for distance measurements and tissue mimicking target structures of varying sizes and contrasts. One hundred and twenty (120) cystic-like target structures are positioned in-line vertically, thereby permitting an entire target group to be displayed in one view. Due to the acoustic similarity of the background material and the target structures, artifacts caused by distortion, shadowing or enhancement have been eliminated.

Six gray scale targets ranging in contrast from +15 to -15 dB are provided to evaluate the system's displayed

dynamic range and gray scale processing performance. All ATS urethane phantoms are guaranteed for the useful life of the phantom, defined as 10 years.

Key Tests with Model ATS 549

- Uniformity
- Beam Profile/ Focal Zone/ Lateral Response Width
- Vertical Distance Measurement
- Horizontal Distance Measurement
- Axial and Lateral Resolution
- Elevational Resolution
- Contrast Resolution
- Grayscale Contrast Sensitivity & Displayed Dynamic Range
- Dead Zone Assessment

CIRS

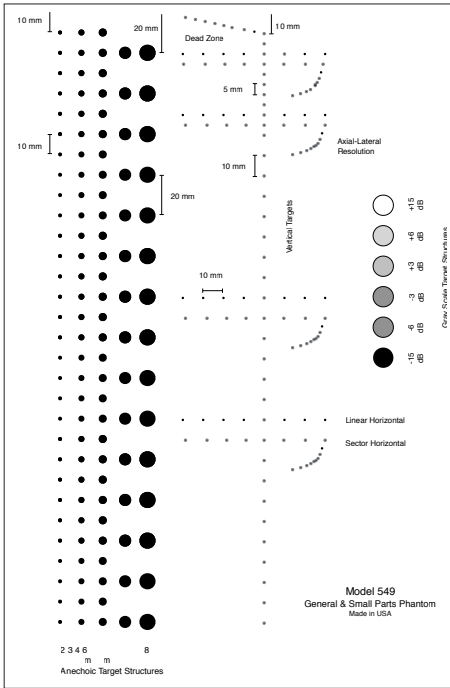
深圳市展业达鸿科技有限公司

吕先生: 15920060912 (微信同号) 0755-22934005 (座机)

地址: 深圳市福田区八卦二路八卦岭工业区615栋419

邮箱: hongqi@thingstet.com

网址: www.thingstet.com



SPECIFICATIONS

DIMENSIONS	36.5 x 25.7 x 9.5 cm (14" x 10" x 4")
PHANTOM WEIGHT	15.5 lbs. (7.1 kg)
HOUSING MATERIALS	PVC
WALL THICKNESS	1 cm
SCAN SURFACES	4
SCAN SURFACES DIMENSIONS	21.0 x 7.0 cm 31.5 x 7.0 cm
TISSUE-MIMICKING MATERIAL	Urethane Rubber

URETHANE PROPERTIES
Freezing point: < -40°C
Melting point: Above 100° C
Speed of Sound: 1450 m/s at 23°
Attenuation Coefficient: 0.5 dB/cm/MHz (measured at 3.5 Hz)

LINE TARGETS
Material: Monofilament nylon
Diameter: 0.08 mm & 0.12 mm

VERTICAL DISTANCE GROUP
Depth range: 1.0 - 30.0 cm
Spacing: 1.0 cm
Depth 1.0– 6.0 cm: .5 cm
Depth 6.0 – 30.0 cm: 1cm

HORIZONTAL DISTANCE GROUP
Number of groups: 8
Depths:
Linear Array Group: 2.0, 5.0, 14.0, 20.0 cm
Sector/Convex Array Group: 2.5, 5.5, 15.0, 21.0 cm
Spacing: 1.0 cm

DEAD ZONE GROUP
Lateral Displacement : 5.0 mm
Depth range: 2.0 - 10.0 mm
Spacing: 1 mm

MODEL ATS 549 INCLUDES

QTY	COMPONENT DESCRIPTION
1	General & Small Parts Phantom
-	10-Year Warranty
-	User Guide
-	Certificate of Compliance

AXIAL-LATERAL RESOLUTION GROUPS
Spacing: 0.5, 1, 2, 3, 4 mm
Depth:
Scan surface 1: 2.5, 5.5, 15, 21.0 cm
Scan surface 2: 7.0 cm
Scan surface 4: 13, 19, 28.5, 31.5 cm

ANECHOIC STEPPED CYLINDERS
Group 2, 3, 4 mm
Type: Non-echogenic, cylindrical
Targets in each group: 30
Diameter: 2.0, 3.0, 4.0 mm
Spacing: 1 cm center to center
Depth: 1.0 - 30.0 cm

Group 6, 8 mm
Type: Non-echogenic, cylindrical
Targets in each group: 15
Diameter: 6.0, 8.0 mm
Spacing: 2 cm center to center
Depth: 2.0 - 30.0 cm

GRAY SCALE TARGETS
Type: Echogenic, Cylindrical