

Contrast and Resolution Mammography Phantom*

Nuclear Associates Model 18-251-2000

Introduction

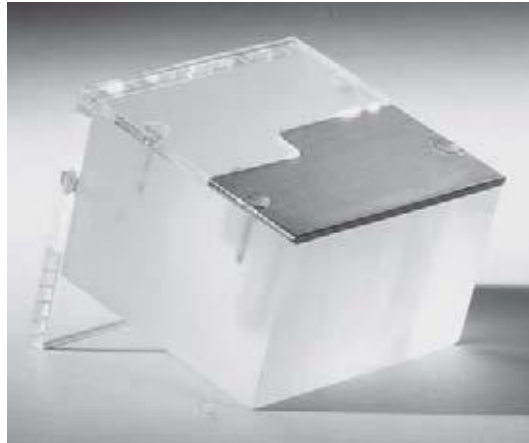
The Contrast and Resolution Mammography Phantom is designed with an extended top edge to aid the user in positioning it on recumbent biopsy tables.

Applications

On digital mammography units, this phantom can test the high contrast spatial resolution of the system with the results being viewed on the monitor. The focal spot high contrast resolution can also be determined by placing a conventional mammography cassette behind the phantom and making an appropriate exposure.

It is suggested that a resolution test pattern from 5-20 LP/mm be used to evaluate the condition of the focal spot. Instead of making focal spot measurements which can be ambiguous, an accurate determination of the x-ray tube's resolution ability can be measured by using the optional Resolution Test Pattern (Model 07-555).

On conventional mammography units, the phantom can be used to meet the ACR guidelines for testing focal spot resolution. The ACR suggests placing a resolution target 4.5 cm above the image receptor and imaging twice: once parallel to the anode-cathode axis and once rotated 90 degrees. With two resolution targets, this can be achieved in a single exposure. The grey scale step wedge can also be used to check the dynamic range of the entire system, indicate processing problems, and variation in film emulsion.



With a single exposure you can:

- Measure the contrast and dynamic range of the imaging system
- Easily measure the system resolution of the focal spot length and width on mammography units (with optional Resolution Test Pattern, Model 07-555)



Phantom with two 5-20 LP/mm test patterns (optional) in parallel and perpendicular orientation. Also includes an air step wedge with aluminum attenuator

Specifications

Phantom body

Materials Cast acrylic block with aluminum plate

Dimensions 6.66 x 6.4 x 4.3 cm thick

Weight without test patterns 8 oz

Optional Resolution Test Pattern (Model 07-555)

Material Gold nickel construction (equivalent to 25 microns of lead or 2.6 mm of aluminum)

Length 25 mm

Width 12.5 mm

Thickness 0.0175 mm (0.0152 mm gold, 0.0025 mm nickel)

Optional accessories

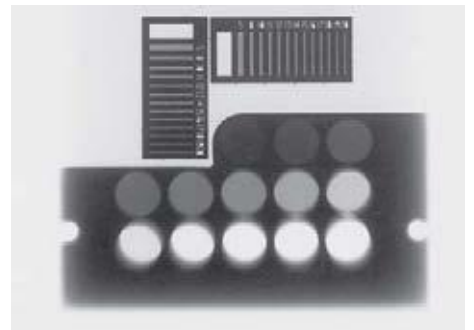
Resolution Test Pattern (Model 07-555)

Available model(s)

18-251 Contrast and Resolution Mammography Phantom

18-251-1000 Contrast and Resolution Mammography Phantom with one resolution test pattern (Model 07-555)

18-251-2000 Contrast and Resolution Mammography Phantom with two resolution test patterns (Model 07-555)



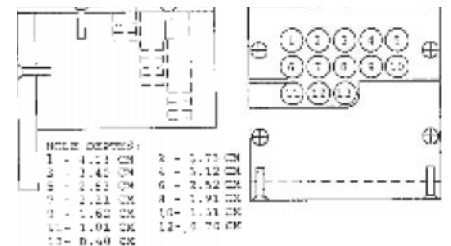
A digital image demonstrating the resolution test patterns (optional) and air step wedge

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For more information, receive our full product catalog, or order online, contact **Radiation Management Services** business of **Fluke Biomedical**: 440.248.9300 or www.flukebiomedical.com/rms.

Specifications are subject to change without notice.

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Drawing showing hole depths