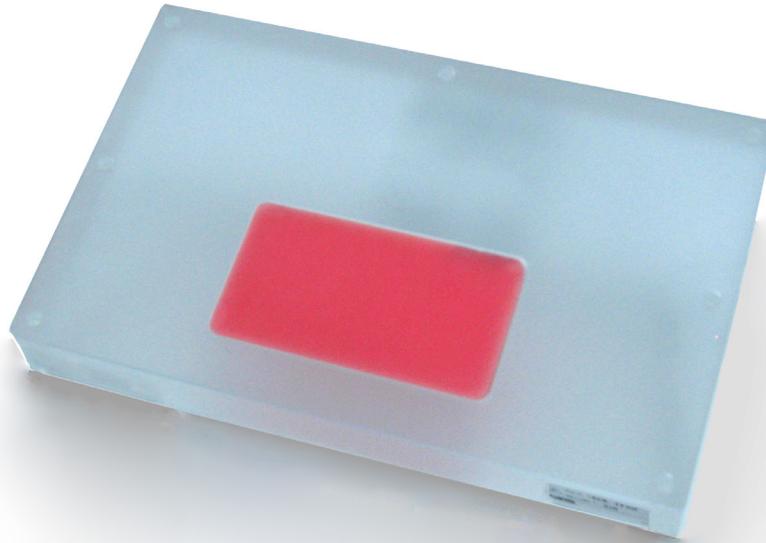


# ACR Digital Mammography Phantom

Model 086



## EVALUATE FFDM SYSTEM PERFORMANCE

The CIRS Model 086, ACR Digital Mammography (DM) Phantom was designed under the sponsorship of the American College of Radiology (ACR) to test the performance of FFDM systems. The ACR Digital Mammography phantom approximates a 4.2 cm thick compressed breast consisting of 50% glandular and 50% adipose tissue. Objects within the phantom simulate calcifications, ducts and tumor masses. The phantom is designed to determine if your DM system can detect small structures that are important in the early detection of breast cancer.

The critical component of the phantom is a 7 mm thick wax insert positioned within a matching cavity milled out in a polymethylmethacrylate (PMMA) block. The total attenuation under the wax insert is matched with the 4.1 cm thick surrounding PMMA by the use of a 0.23 mm "compensator" placed under the wax insert. The wax insert contains targets as per map (Figure 2). Fibers are monofilament nylon, simulated calcifications or "specks" are made of

spherical glass and the masses simulate 10% adipose - 90% glandular breast tissue.

CIRS Model 086 includes carry case, user guide and 48-month warranty.

### Features

- Finer gradations & smaller size test objects to evaluate performance of FFDM systems
- Provides view of entire detector for artifact evaluation
- Provides basis for monitor and printer QC
- Reviewers can see scores & artifacts on single image submission without need for different WW/WL settings

<https://www.acraccreditation.org/Modalities/Mammography>

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Tissue Simulation & Phantom Technology

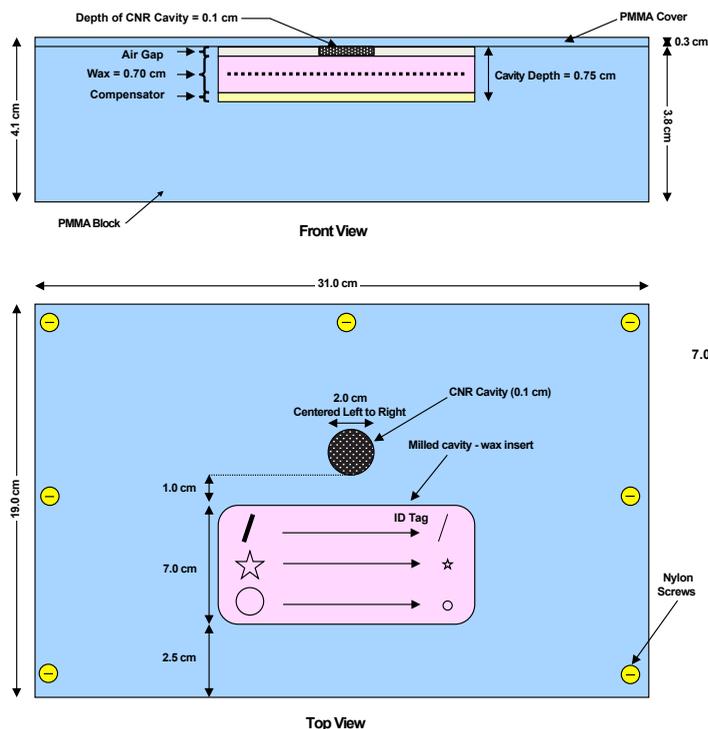


Figure 1. FFDM Accreditation Phantom Schematic Drawing

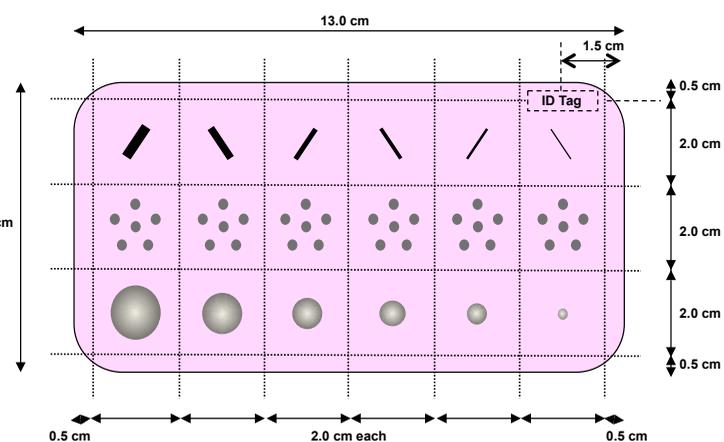


Figure 2. Wax Insert Map

SPECIFICATIONS

Fibers	Specks (diameter)	Masses (thickness)
0.89 mm fiber	0.33 mm sphere	1.00 mm mass
0.75 mm fiber	0.28 mm sphere	0.75 mm mass
0.61 mm fiber	0.23 mm sphere	0.50 mm mass
0.54 mm fiber	0.20 mm sphere	0.38 mm mass
0.40 mm fiber	0.17 mm sphere	0.25 mm mass
0.30 mm fiber	0.14 mm sphere	0.20 mm mass

MODEL 086 INCLUDES

QTY	COMPONENT DESCRIPTION
1	Full Field Digital Mammography Accreditation Phantom
1	Carry Case
1	User Guide
-	48-month warranty

