Leeds Test Objects
medical imaging phantoms

MiRo House
Becklands Close
Boroughbridge
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UNITED KINGDOM

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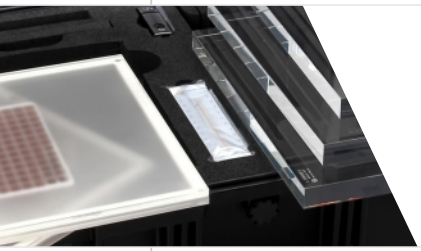

DMAM2

Digital Mammography Set

Designed in accordance with European guidelines for quality assurance in breast cancer screening and diagnosis (fourth edition) - ISBN 92-79-01258-4

A set of test objects for digital mammography systems, designed to be used quickly and easily on a regular basis to provide an ongoing check of imaging performance, particularly those aspects which are most liable to deterioration. An ongoing record of the results of these checks will reveal any trend towards deterioration in imaging performance.

DMAM2 comprises:

- **Threshold Contrast Details**
78 contrast details in 6 sizes, dia range from 0.1mm to 2.0mm, contrast range 0.489% to 27.56%

- **Filaments**
6 groups of multi-directional filaments 0.40mm to 0.20mm diameter

- **PMMA plates**
Polymethylmethacrylate (PMMA) plates with a dimensional tolerance of ±0.1mm.
(1pc) 300 x 240 x 20mm (with encapsulated 99.99% 0.20x10x10mm Al foil for SNR and CNR)
(2pc) 300 x 240 x 20mm
(1pc) 300 x 240 x 10mm
(1pc) 300 x 240 x 5mm

- **Radiopaque mesh** 400 micron (mesh size #40) covering an area 300 x 240mm

- **Radiopaque grid** of horizontal, vertical and diagonal lines covering an area 300 x 240mm

- **Stainless steel straight edge** accurate to ±20 microns. Angled at 3°

contd.

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contd.

- **Spatial Resolution Test Pattern** 0.5 - 14.3 LP/mm. Angled at 45°
- **X-ray to Light Field Alignment** Radiopaque Rulers x4, Phosphor Screens x5
- **Aluminium filter** 2.0 ±10% mm 99.9%+ purity for homogeneity tests
- **Aluminium filter** 0.1 mm 99.5% for ghost image / erasure thoroughness
- **Foam spacers** to set the compression paddle position
- **1.0mm stainless steel plate** 300 x 240mm, to shield the detector from X rays during measurement of incident air kerma at the entrance surface of PMMA slabs

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Product X-ray

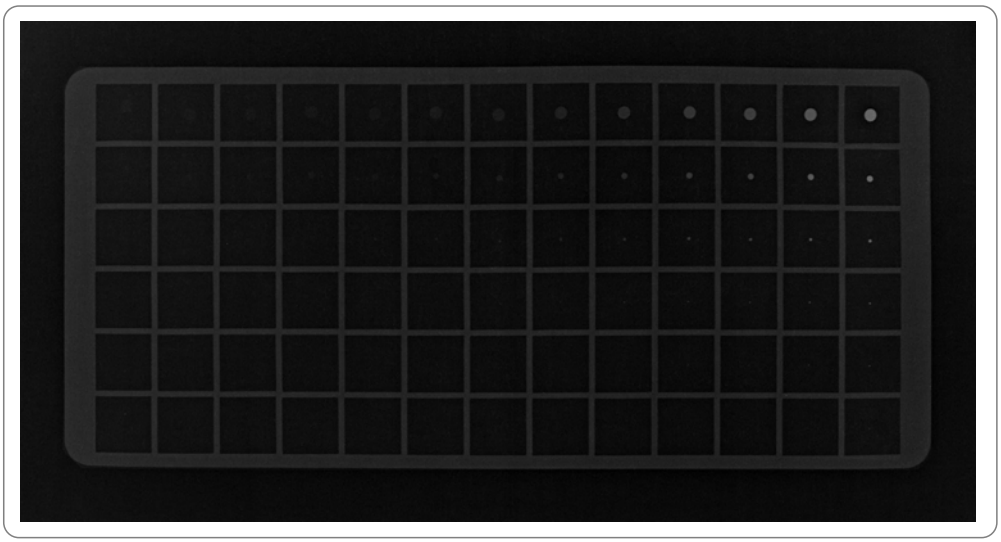

fig. 1 Gold Threshold-Contrast details

fig. 2 PIXMAM X-ray

www.leedstestobjects.com

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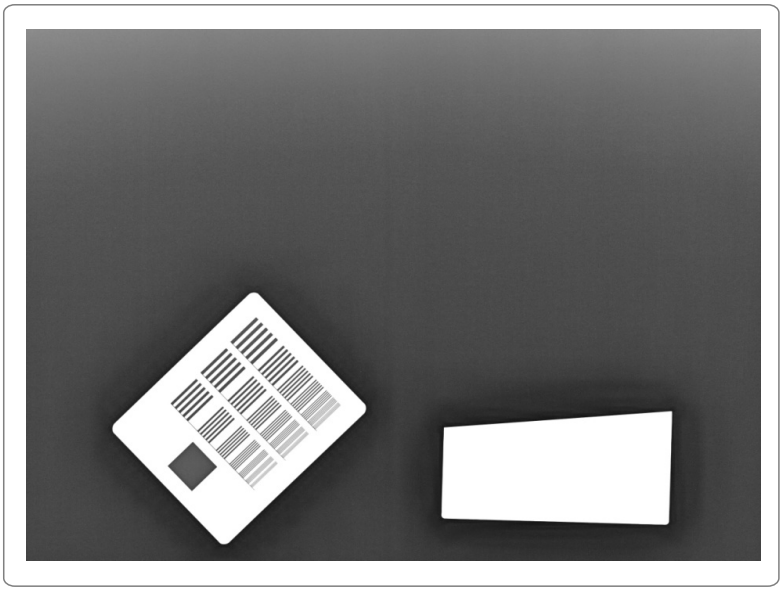

fig. 3 MTF test tool

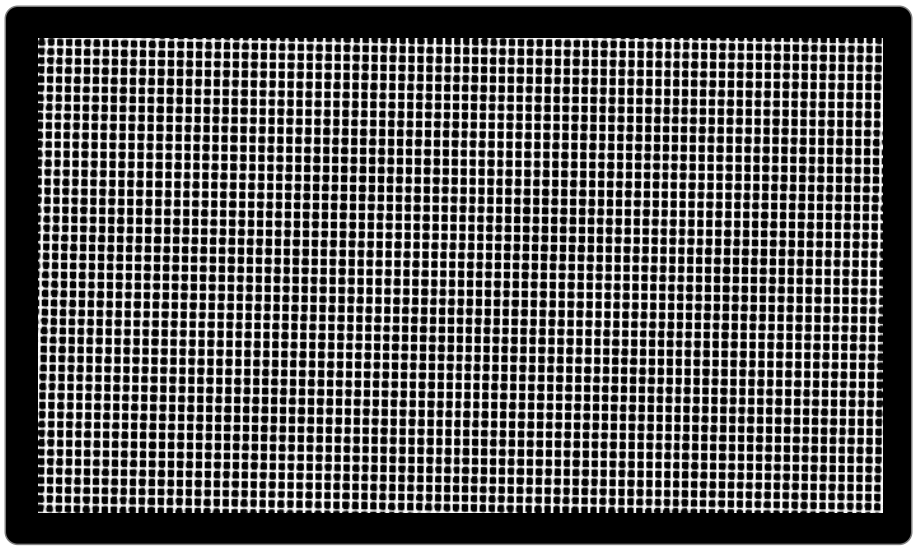

fig. 4 Artefact Evaluation Mesh

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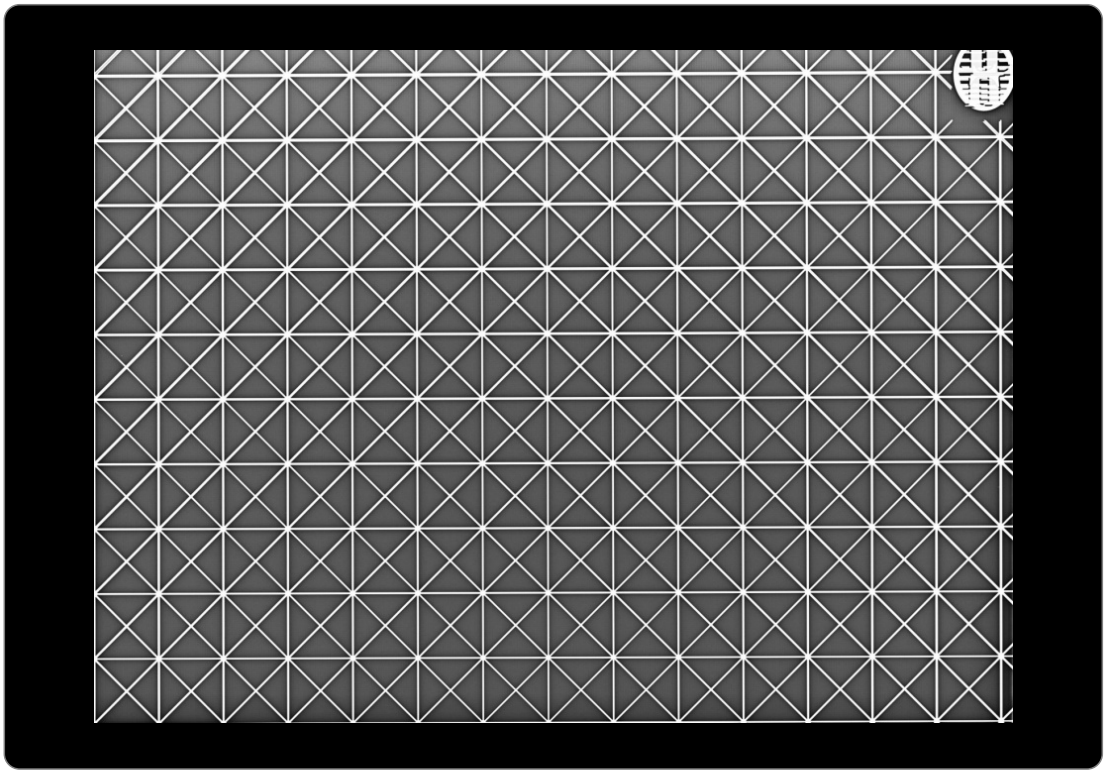

fig. 5 Geometric Distortion Grid