

## Model 11-101 Pro-US MTF Ultrasound Phantom

Part Number: 99-8996

The Model 11-101 Pro-US MTF (Modulation Transfer Function) Ultrasound Phantom is a tissue-mimicking phantom for use as a routine technical quality assurance test device for resolution measurement. It provides a consistently comparable and reproducible result from a single image.

The phantom is a block of polyvinyl alcohol (PVA) containing test objects for radial MTF and geometry assessment, all wrapped in a polyvinyl chloride (PVC) cover. The PVA based material mimics the sound velocity and acoustic attenuation of human tissue and is nontoxic, durable, and easy to handle and maintain.

Phantom images can be sent via DICOM (Digital Imaging and Communications in Medicine) format to an existing display to calculate and process the MTF of the image file. Optional Pro-US MTF software is available to auto-analyze the MTF of the image file.



### Specifications

- Overall Dimensions: 110 x 110 x 60 mm
  - Top and bottom cover made of PVC
  - Test Insert Dimensions: 110 x 110 x 50 mm
  - Test insert contains:
    - 20 mm diameter round objects (20 mm and 10 mm from phantom faces) for radial MTF
    - 2 groups of four round rods (1 mm in diameter) with 15 mm horizontal and vertical spacing for geometry assessment
  - Tissue mimicking material is based on PVA, a synthetic polymer
  - Carrying case included
  - CE certified
  - Manual provides guidelines for carrying out each test and results assessment
- Complies with:
    - “Quality Assurance for Ultrasound Scanners using a durable tissue-mimicking Phantom and radial MTF”, Marcus Kaar, Friedrich Semturs, Michael Figl, Rainer Hoffmann and Johann Hummel, Center for Biomedical Engineering and Physics, Medical University of Vienna, Austria
    - Real-time B-mode US quality control test procedures: Report of AAPM Task Group No. 1
    - Quality assurance of U.S.-guided external beam radiotherapy for prostate cancer: Report of AAPM Task Group 154

### Optional Software

#### Pro-US MTF Software ECO Annual Subscription (PN 99-8993)

This software is an online DICOM viewer. The ECO subscription allows you to test one phantom, twice a month.

Ludlum Measurements, Inc. P.O. Box 810, Sweetwater, Texas 79556

Web: [ludlums.com](http://ludlums.com) Tel: 800-622-0828 / 325-235-5494 Fax: 325-235-4672 Email: [sales@ludlums.com](mailto:sales@ludlums.com)

Note: specifications subject to change without notification. We are not responsible for errors or omissions.