

ACR Ultrasound QC Tests

1. Physical and Mechanical Inspection
2. Image Uniformity and Artifact Survey
3. Geometric Accuracy (optional)
4. System Sensitivity
5. Ultrasound Scanner Electronic Image Display Performance
6. Primary Interpretation Display Performance
7. Contrast Resolution (Optional)
8. Spatial Resolution (Optional)
9. Evaluation of QC Program (if applicable)

Ultrasound Doppler QC Testing

Doppler QC tests may include

- Doppler signal sensitivity;
- Doppler angle accuracy;
- Color display and Gray-scale image congruency;
- Range-gate accuracy;
- flow readout accuracy.



Ultrasound Phantom Demo



**Ultrasound QC for Prostate
Brachytherapy Systems
AAPM Report No. 128**

Ultrasound QC tests:

- Needle Template Alignment
- Distance, Area and Volume Accuracy
- Maximum Depth of Penetration
- Image Uniformity and Artifacts
- Spatial Resolution

**Automated Ultrasound QC Method
Demo**
