

MRgRT Insight Phantom

QUASAR

BY MODUS QA

Capture a deeper understanding of MRgRT system performance with only **one comprehensive and efficient scan**.

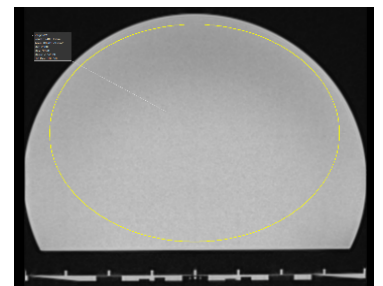
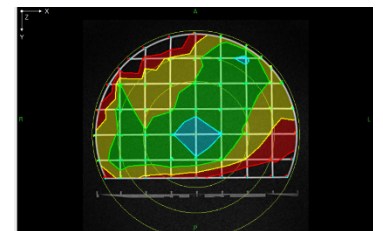
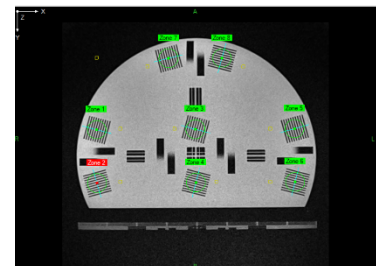
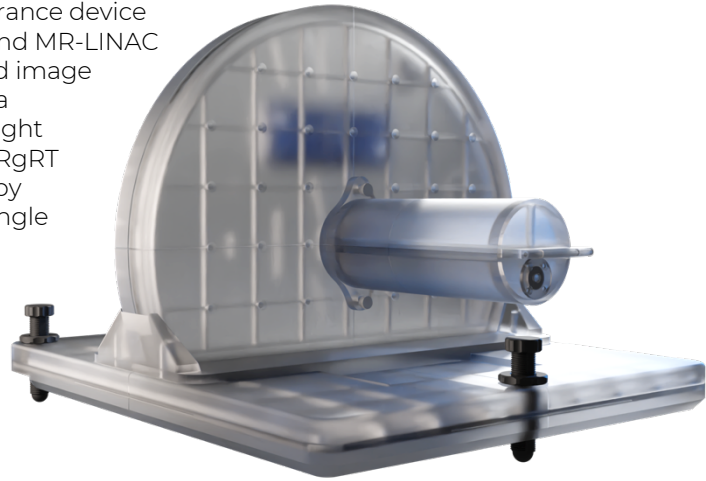
KEY FEATURES

The QUASAR™ Insight is a comprehensive, time-saving quality assurance device designed to test image quality and machine targeting on MR-SIM and MR-LINAC systems. Covering a multitude of targeting, geometric distortion and image quality testing recommendations in the AAPM TG284 and the Elekta consortium Machine QA for the Elekta Unity reports, the MRgRT Insight eliminates the need for several ad-hoc, small FOV phantoms. The MRgRT Insight adds efficiency and saves physicists valuable scanning time by offering comprehensive MR system performance metrics in just a single scan.

- ▶ **Large FOV:** 400mm imaging FOV enables efficient QA of entire treatment field without need for repeated repositioning or scanning
- ▶ **Comprehensive:** Perform a variety of targeting, geometric distortion, image quality, and E2E dosimetry tests for thorough MRgRT system QA
- ▶ **Efficient:** Complete all major daily or periodic QA with one 5 minute acquisition
- ▶ **Automated:** Automated software calculates and reports image quality metrics and monitor system performance within minutes
- ▶ **Intuitive:** Pass/fail interface with customizable tolerances for quick triage of MR metrics

The intuitive design facilitates a quick-scan, Daily QA tool and platform for more time-intensive periodic tests including:

- laser and patient table positioning accuracy
- imaging/laser isocenter alignment
- MR/MV isocenter coincidence
- Spatial resolution
- Uniformity
- Slice thickness
- Large FOV B0 geometric distortion assessment in sagittal, coronal, and axial planes
- Phased-array coil SNR
- Ferrous content detection
- End-to-end dosimetry

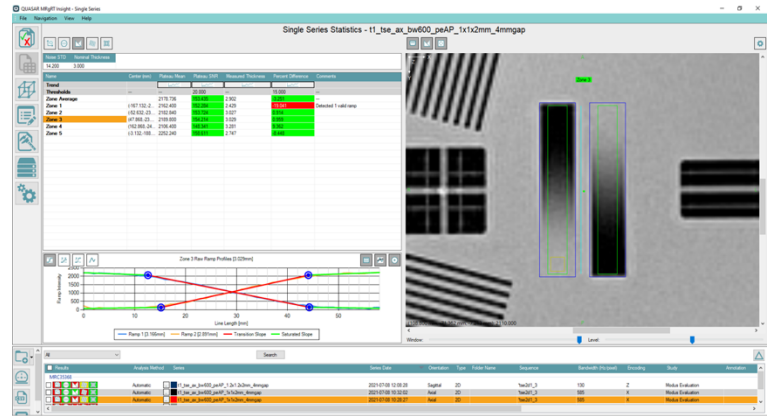


AUTOMATED IMAGE ANALYSIS SOFTWARE

The QUASAR™ MRgRT Insight software application is designed to match with the specific needs of MR medical physicists to optimize their daily and periodic QA clinical workflow. Software features such as intuitive pass/fail mode, automated image analyses and performance metric calculations, allows for users to efficiently complete morning QA while consistently maintaining high standards of performance testing accuracy.

Use the automated software to rapidly calculate image quality metrics and monitor the performance of your MR system within minutes. Statistics include: large FOV BO assessment/ uniformity, slice thickness, spatial resolution, ghosting, geometric distortion and phased array SNR.

Intuitive pass/fail mode further streamlines daily and periodic QA processes. Incorporating a simple pass and fail interface with customizable accepted tolerances, physicists can evaluate and understand their MR system's metrics in mere minutes. This unique feature provides quick assessment of MR performance before significant time is invested in intensive QA procedures.



Above: Automated software calculates image quality metrics and monitors MR system performance

MINIMUM TECHNICAL REQUIREMENTS

- Operating System: Windows 7 SP1 or higher
- Processor: Intel Core™ i7 or better
- Hard Disk Space: 10 GB minimum (64-bit)
- RAM: 8 gigabyte (GB) or more
- Screen Resolution: 1920 x 1080 pixels
- Graphics Card: Intel HD Integrated Graphics or Nvidia GeForce GTX 750 or better

SPECIFICATIONS

- Physical Dimensions:
 - Upright Plate: 426mm (r) x 58mm (d)
 - Base Plate: 510mm x 380mm
- Imaging Dimensions:
 - Upright Plate: 400mm (r) x 18mm (d)
 - Base Plate: 400mm (RL) x 500mm (SI) x 12mm (AP)
- Height Adjustment Range: 38mm (base)
- Mass: 7.4kg (upright), 9.1kg (base)
- Phantom Material: Acrylic
- Contrast Media: high TI contrast Paraffinic Mineral Oil
 - TI~300ms @ 1.5T

ORDERING INFORMATION

QUASAR™ MRgRT Insight Platform (100-1023)

- 1 – Software License
- 1 – Phantom
- 1 – User's Guide

INCLUDED ACCESSORIES

- Laser Alignment Target (500-3710)

OPTIONAL ACCESSORIES

- Indexing Accessory (500-3730)
- Phased Array Coil Bridge (500-3750)
- Film Cassette Insert (500-3705)
- Single Ion Chamber Holder (500-3720)
- Dual Ion Chamber Holder (500-3740)
- MR/MV Targets - 3 Targets (500-3712)

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