



GOLD
STANDARD
PHANTOMS

SPIRIT

Spherical multiParameter Imaging
Reference for Instrument Testing

SPIRIT is a cutting-edge MRI Quality Assurance (QA) phantom designed to streamline scanner validation, quantitative MRI (qMRI) accuracy checks, and spatial distortion assessments. Developed with input from leading MRI physicists and engineered for seamless integration, SPIRIT is the essential tool for medical institutions, research facilities, and imaging centres.

The *Ultimate* MRI QA Phantom

Multi-Parametric Testing in One Device

SPIRIT combines NIST-calibrated, SI-traceable T1, T2, and ADC vials with geometrical features, enabling comprehensive MRI scanner QA.

Advanced Slice Thickness & Distortion Measurement

Equipped with precision-crossed wedges at the centre of the phantom, SPIRIT provides highly accurate slice profile analysis.

Optimized for Homogeneous Field Imaging

A spherical design ensures superior shimming, minimising field inhomogeneities for consistent and reliable results.

Versatile Multi-Location Sampling

Identical T1/T2 values are distributed across multiple locations, allowing easy detection of B1 and B0 field variations.

Custom-Tuned for Brain Imaging QA

The phantom chamber contains a liquid formulation for optimal background signal, magnetic susceptibility matching, and coil loading.

Highly Visible Fiducials for Spatial Accuracy

Using 52 MR visible fiducials arranged in a rectilinear Cartesian grid, SPIRIT enables precise spatial distortion analysis.

Testing MRI Resolution

A 0.5 to 3.0 mm resolution grid, repeated in multiple orientations, assesses the ability of image acquisitions to resolve fine details.

Seamless Compatibility with Major MRI Systems

Designed for universal use, SPIRIT fits into most MRI manufacturers head coils and integrates into standard MRI workflows.

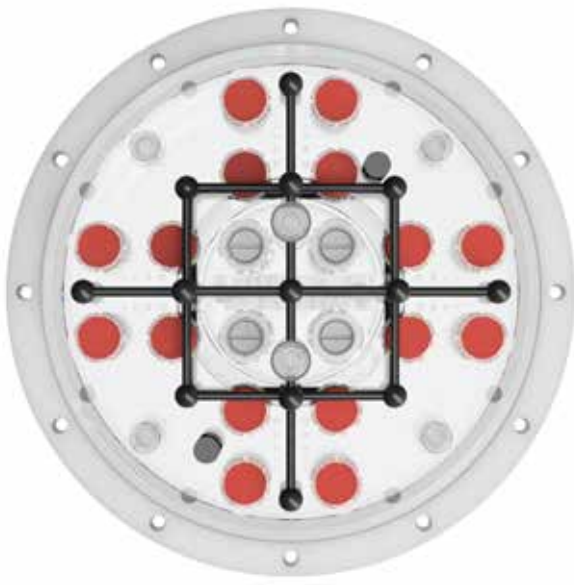
Robust & Reproducible Placement

A dedicated holder ensures consistent positioning within MRI head coils for repeatable, high-precision testing.

Ready for Future-Proof Imaging

Includes advanced software for automated slice profile analysis, spatial distortion mapping, and signal level extraction (WIP)





Diameter 191 mm

Contents Filled with a standard configuration of
SI Traceable diffusion and relaxometry vials
MnCl₂ Flood Fill
Ethylene Glycol NMR thermometers

Fiducials and features 52 fiducial nodes of 8 mm diameter regularly spaced
on a 34 mm rectilinear grid

Slice wedges adhering to NEMA MS 5-2018 at the
centre of the Phantom

Resolution grids: 5 groups of resolution quantification
with features of 0.5 mm diameter to 3 mm diameter
positioned as such:

- four sets of 6 by 3 grids of features in each
cardinal direction
- one group of features positioned in a 1 by 11 grid
in the slice wedges at the centre of the phantom

Materials Shell and structural components: Polycarbonate
Plug: GF Nylon
Seals: FKM and silicone
Fiducial grid: Accura ClearVue

Sample containers 4x 10ml, 100x16 mm polypropylene vials
16 x 4ml, 41x16 mm polypropylene vials

Packaging Foam-padded box for storage and transport

Supplied with Torque screwdriver
250 ml bottle of MnCl₂-based flood fill
Spare part kit (additional fixtures/fitings)

Optional Extras Phantom holder and positioning kit
for reproducible alignment in MRI Coils

Why Choose SPIRIT?

All-in-One MRI QA Solution
High Precision & Reliability
Seamless Scanner Integration
Engineered for Consistency
Trusted by Experts Worldwide



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Serial Number:

SN- _____

