

# The Essence of Quantitative MRI. Evolved.

The ultimate  $T_1$ ,  $T_2$ , and proton density characterization phantom that houses all the qMRI essentials. Just the right fit for most MRI coils, including the Siemens 64-Channel Head/Neck coil.

Now equipped with expanded standardization temperature range capabilities

qMRI standardization just got even easier with the introduction of the CMRI patented Liquid Crystal MR-Readable Thermometer, developed in collaboration with NIST. This ultimate, much-anticipated standardization thermometry is capable of standardizing between 15°C and 24°C and is now accessable to all qMRI advancers.

### Discover the Essential System Phantom

#### $\checkmark \checkmark \checkmark$



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## Know the Essential Specs

Grounded in NIST accuracy and precision. Contrast solutions measured at NIST at 3.0 T between 16°C and 26°C, and at CMRI headquarters at 1.5 T, 20°C.



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NIST traceable contrast spheres designed for  $T_1$ ,  $T_2$ , and proton density specificity.

The Essential System Phantom contains 14 demountable contrast spheres of each human tissue mimic. Includes  $T_1$  range at 20°C, 3.0 T is 1900 ms - 20 ms,  $T_2$  range at 20°C, 3.0 T is 550 ms - 5 ms, and PD range is 5% - 100%.

Achieve MR image uniformity utilizing CMRI's precisely placed fiducial reference markers. Identify geometric distortion, image uniformity, and B1 homogeneity. CMRI's 19 fiducial reference markers are placed with a precision of 150 μm (microns) so users can obtain essential insight into scanner distortions.

**Enhance slice resolution and evaluate alignment with the CMRI slice wedge.** The CMRI slice profile inclination and declination wedges are angled preciselyat 10° for ultimate slice profile standardization.

Expand your understanding of scan quality with the ultimate precision of the resolution insert. CMRI's 4×4 resolution insert patterns are offset by 10° and contain an array of holes with diameters ranging

from 0.4 mm to 0.8 mm. This unique insert minimizes misalignment on and off scan axis when processed with the recommended resolution MRI protocol.

#### Bolder contrast made possible by a bright blue copper sulfate interstitial fill.

The blue copper sulfate filling enhances what matters on your phantom MRI scans and decreases scan acquisition time.

