



# Model 4 Asynchronous CT Calibration Phantom

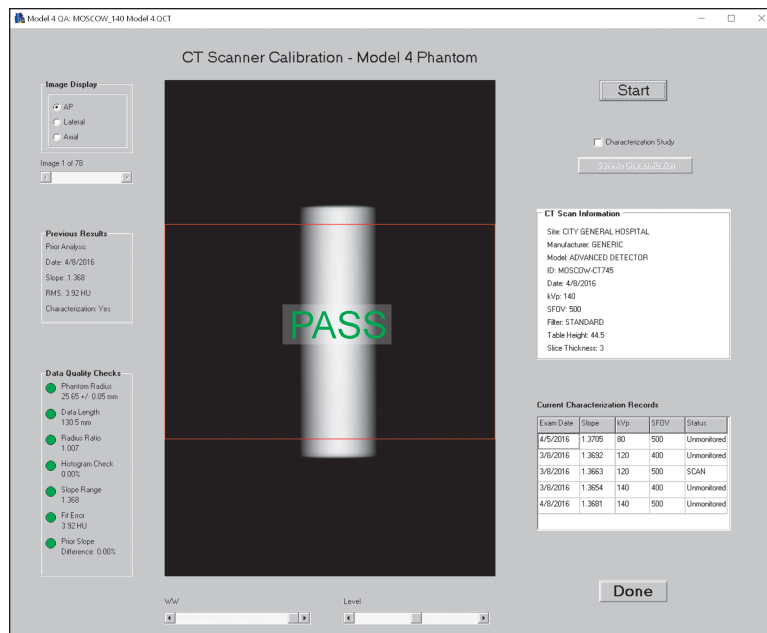
## The Next Generation CT Calibration Phantom

### FEATURES

- For use with the QCT PRO Asynchronous Calibration Module.
- Calibration valid in the x-ray energy range used for typical whole-body CT scanners.
- Can be used with all modern whole-body CT scanners.
- Single material, high symmetry design uses attenuation, including beam hardening, measurements for calibration purposes.
- Ten year service life.
- Dimensions: 15.24 (L) x 5.08 (D) cm.

Mindways introduces its new solid CT calibration phantom intended for use with the QCT PRO Asynchronous Calibration Module. With the Mindways Asynchronous Calibration Technology, bone mineral density estimates can be obtained from routine CT scans that do not include a bone density calibration standard scanned with the patient because the necessary calibration information is obtained from a separate phantom scan acquired on the same CT scanner used for patient imaging. Much simpler phantom designs are possible since the CT calibration phantom does not need to be compatible with placement underneath a patient during a patient CT scan.

The new Model 4 phantom is a single-component cylindrical phantom. The high-symmetry and known composition of the Model 4 phantom provide a structure suitable for the analytic description of the x-ray attenuation properties of the Model 4 phantom, including the effects of beam hardening. The simultaneous CT measurement of attenuation and beam hardening signature for the Model 4 phantom supports derivation of an aqueous  $K_2HPO_4$  calibration equation analogous to those obtained from previous generation phantoms, including Mindways CT calibration phantoms and the UCSF-designed liquid  $K_2HPO_4$  phantom, that relied upon the use of multiple calibration standards for bone density calibration purposes.



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