

Measuring on Hologic Selenia Dimensions 2D and 3D with W/Cu beam quality

– with RaySafe Xi R/F calibrated before October 2014



BACKGROUND

In October 2013, Hologic introduced a new beam quality using W/Cu for their Selenia Dimensions 2D and 3D models. The application is called Contrast Enhancement and is used together with a normal mammography exposure in a two exposure sequence.

Since the 40 – 49 kV range is outside of the specification for the RaySafe Xi MAM detector, the RaySafe Xi R/F detector needs to be used for these measurements. Our tests have shown that all parameters except HVL will perform within specification when using the RaySafe Xi R/F detector. The HVL needs to be corrected for Xi R/F detectors calibrated before October 3, 2014. Other R/F detectors do not need a correction factor.

INSTRUCTIONS

To measure on the Hologic Selenia Dimensions 2D or 3D with W/Cu beam quality, use the RaySafe Xi R/F detector with R/F Low selected. For the HVL value, use a correction factor of 1.05 for R/F detectors calibrated **before October 3, 2014**.

Example: *The measured HVL is 3.45 mm Al.*

$$3.45 \text{ mm Al} \times 1.05 = 3.6225 \text{ mm Al}$$

SPECIFICATION FOR THIS APPLICATION

Uncertainty dose (40 – 49 kV): 5%

Uncertainty kV (45 – 49 kV): 2%

Uncertainty HVL (45 – 49 kV): 5%

CONTACT

Please visit <http://www.raysafe.com> for more information.