

Notice 2023-DRS0003

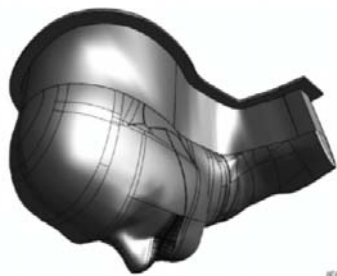
February 14, 2023

Guidance on Application-specific phantoms

This notice clarifies ISED's position regarding the application-specific phantoms introduced in the international standard IEC/IEEE 62209-1528 (see Figures 1 to 3 below).

The provisions of the IEC/IEEE 62209-1528, including the normative Annex K (where the application-specific phantoms are described), were adopted by reference and came into force in Canada on May 2021 (see [Notice 2020-DRS0020](#) for details).

Figure 1 – Face-down SAM* phantom



The face-down phantom is intended for devices where the exposure is at the front side of the head or devices where transmitters are mounted on eyeglasses or eyewear

*SAM stands for Specific Anthropomorphic Mannequin as defined in the IEC/IEEE 62209-1528.

Figure 2 – Head-stand SAM phantom



The head-stand phantom is intended for devices where the exposure is at the top side of the head (e.g. head-mounted devices)

Figure 3 – Wrist phantom



The wrist phantom is intended for wrist-worn wearable devices such as watches, bracelets, etc.

Many testing laboratories have been using the application-specific phantoms to successfully certify equipment for the Canadian market. However, from time to time testing laboratories have requested permission to conduct the testing **without** the application-specific phantoms. These requests were evaluated on a case-by-case basis.

ISED notes that testing without application-specific phantoms can lead to following problems due to the non-standardized positioning:

- Unrepeatable / unreproducible measurements, and
- larger measurement uncertainty contributions, due to non-standardized areas of the SAM phantom being used.

ISED reiterates that testing laboratories shall continue to use the application-specific phantoms whenever applicable. In the event a testing laboratory is unable to perform the RF exposure assessment with an application-specific phantom, the testing laboratory shall request permission to use a different phantom by providing ISED a detailed rationale as to why the application-specific phantoms cannot or should not be used. Such a request shall be sent to ISED at the following email address: certificationbureau-bureauhomologation@ised-isde.gc.ca. ISED will review these requests on a case-by-case basis.

Note: Watches with flat back surface can continue to be tested with flat phantom without requesting permission.

In all cases, ISED notes that when performing market surveillance on devices subject to application-specific phantoms evaluations, the relevant phantom will be used to assess compliance with its requirements.

Should you have any questions, contact ISED via the following web page: [General Inquiry form](#).

Date modified:

2023-02-15