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*MCL Technology Limited*  
*sam-phantom.com*

## **Upright SAM head and head & shoulder phantoms: IEC 62209-1, IEEE 1528 and CENELEC EN62209 compatible; suitable for CTIA testing**



### **Specification:**

- Constructed from reinforced fibreglass resin using inner and outer moulds produced from CAD files by CNC machining.
- Shell thickness of  $2.0 \pm 0.2$  mm over the volume of the head, except within  $\pm 0.5$  cm of vertical joint (in plane of nose), where the thickness is  $4.0 \pm 0.5$  mm
- Inner and outer shapes corresponding to IEEE/CENELEC specified dimensions to  $\pm 0.2$  mm.
- To generate the head & shoulders phantom, the IEEE/IEC SAM head has been extended below the neck region using information from the CENELEC SAM dataset so that its overall height (from top of skull to mounting base with the head looking out horizontally) is  $300 \pm 2$  mm. The width of the base is truncated to  $225 \pm 2$ mm.
- Shell thickness of each phantom individually tested and certified.
- Construction compatible with glycol-containing tissue-simulant liquid or MCL-T broadband liquid
- Finished in chemical-resistant polyurethane gloss white.

- Can be supplied with shoulders, to customer's requirements.
- 10 cm base-mounted filling port sealed with a bolted O-ring cap with a central bleed bolt (also with O ring): this allows the main cap to be fitted with the phantom filled, and residual air bubbles to be removed *via* the threaded bleed hole.
- The cap closes flush with the base, with no protrusion below the level of the base. Different base and filling arrangements can be supplied to customers' requirements.

MCL-T has now produced the next generation of SAM heads - solid heads that match the electrical properties of tissue over a wide frequency range and do not need to be filled with tissue-equivalent liquid. Please contact us for more information.