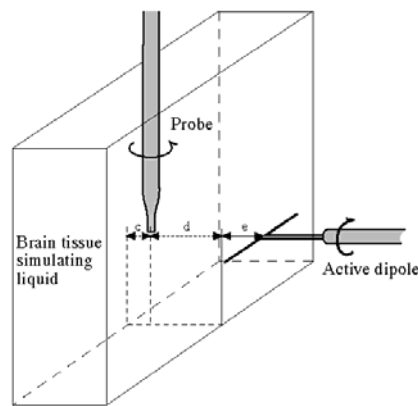


Uniform E-Field Generation

The method of guaranteeing the E-field is as follows. The jig used was as shown in Figure A.2 of the 4th April draft of IEEE1528-200X and as described in section A.5.2.1 (dipole with flat phantom). The following description is given:

“The first setup, shown in Figure A.2, consists of a thin plastic box filled with tissue simulating liquid that is exposed to the energy from a half-wave dipole operating at test frequency. The dipole is mounted on a rotary joint and positioned parallel to the liquid. The center of the three probe sensors is positioned at the maximum of the standing wave near the back of the box at a distance d from the phantom/liquid interface at a point collinear with the dipole feed-line axis. The E-field is partially homogeneous at this point and the H-field is at a minimum.”



(Figure A.2)

The method of calibrating the probe is to utilise the above arrangement to define the location and E-field conditions and then to calibrate the probe by a substitution method using a probe previously calibrated in a waveguide at NPL. This procedure is described in the probe calibration documents.

As for the additional details of the GSM vs CW comparison, the range of diode voltages tested was 0.02 to 100mV on each channel for CW corresponding to SAR levels of approx. 0.005 to 20 W/kg. This covers GSM powers of up to 2.5 W/kg for one timeslot.

The GSM comparisons are done on a batch basis and the linearity plots for a representative probe are given in the probe calibration document.