

## APPENDIX D – DIPOLE VALIDATION PLOTS

### Dipole 450 MHz

SAM II Phantom: Flat Section; Position: (90°, 90°); Frequency: 450 MHz

Probe: ET3DV6 - SN1609; ConvF(7.40, 7.40, 7.40); Crest factor: 1.0; Brain 450 MHz:  $\sigma = 0.85$  mho/m  $\epsilon_r = 43.2$   $\rho = 1.00$  g/cm<sup>3</sup>

Cubes (2): SAR (1g): 4.73 mW/g  $\pm 0.14$  dB, SAR (10g): 3.09 mW/g  $\pm 0.14$  dB, (Worst-case extrapolation)

Coarse:  $D_x = 20.0$ ,  $D_y = 20.0$ ,  $D_z = 10.0$

: Powerd(1): -0.00 dB

Comment:

Dipole Validation (D450V2/ S.N: 1007)

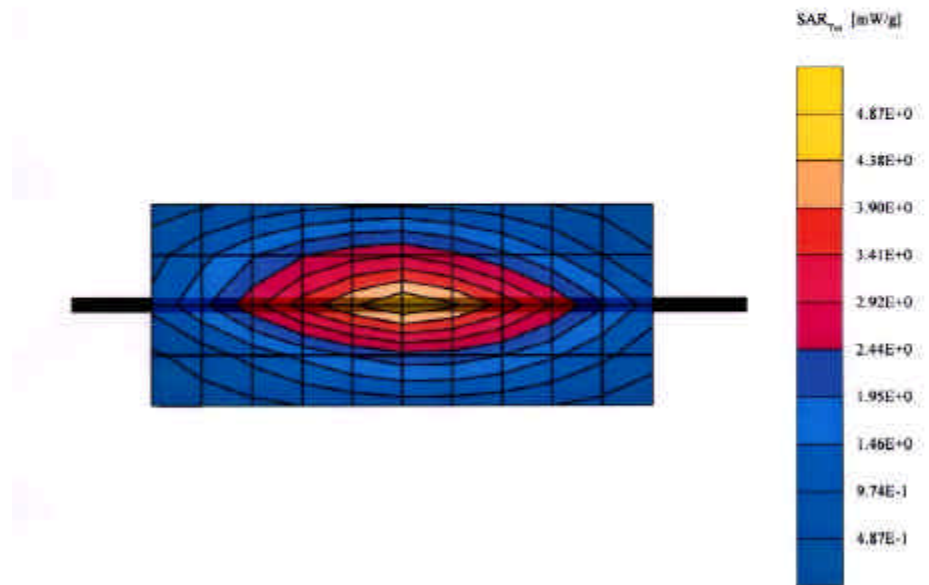
450MHz Brain

Antenna Input Power: 30dBm (1 W)

HCT Co., Ltd. Brain Tissue Simulating Liquid

Liquid Temperature: 22 °C

Date Tested: August 7, 2002



HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD.

SAN 136-1, AMI-RI, BUBAL-EUP, ICHEON-SI, KYOUNGI-DO, 467-701, KOREA

TEL : +82 31 639 8518 FAX : +82 31 639 8525 [www.hctec.co.kr](http://www.hctec.co.kr)

### Dipole 450 MHz

SAM II Phantom; Flat Section; Position: (90°, 90°); Frequency: 450 MHz  
 Probe: ET3DV6 - SN1609; ConvF(7.40, 7.40, 7.40); Crest factor: 1.0; Brain 450 MHz:  $s = 0.86 \text{ mho/m}$ ,  $\sigma = 43.2 \text{ } \Omega^{-1} \text{ m} = 1.00 \text{ g/cm}^3$

Cubes (2): SAR (1g):  $4.73 \text{ mW/g} \pm 0.14 \text{ dB}$ , SAR (10g):  $3.09 \text{ mW/g} \pm 0.14 \text{ dB}$ . (Worst-case extrapolation)  
 Cube 5x5x7:  $D_x = 8.0$ ,  $D_y = 8.0$ ,  $D_z = 5.0$

Comment:

Dipole Validation (D450V2/ S.N: 1007)

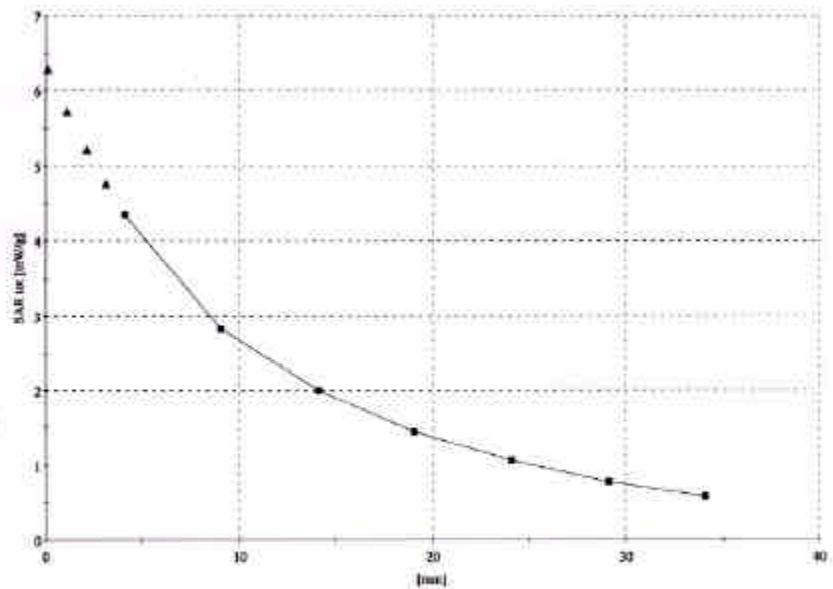
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## Title: 450MHz Brain

Model: GMRS-1100

August 07, 2002 08:18 AM

| Frequency      | e'      | e''     |
|----------------|---------|---------|
| 400.000000 MHz | 43.7347 | 36.8833 |
| 405.000000 MHz | 43.3039 | 36.6187 |
| 410.000000 MHz | 42.9053 | 36.3678 |
| 415.000000 MHz | 42.5188 | 36.2842 |
| 420.000000 MHz | 42.3589 | 36.0425 |
| 425.000000 MHz | 42.1312 | 35.9944 |
| 430.000000 MHz | 42.2461 | 35.7035 |
| 435.000000 MHz | 42.4046 | 35.3342 |
| 440.000000 MHz | 42.6008 | 35.1189 |
| 445.000000 MHz | 42.8805 | 34.8559 |
| 450.000000 MHz | 43.1520 | 34.5786 |
| 455.000000 MHz | 43.4935 | 34.3121 |
| 460.000000 MHz | 43.8226 | 34.0134 |
| 465.000000 MHz | 44.0627 | 33.6595 |
| 470.000000 MHz | 44.2817 | 33.4310 |
| 475.000000 MHz | 44.3781 | 33.1365 |
| 480.000000 MHz | 44.4029 | 32.9559 |
| 485.000000 MHz | 44.2742 | 32.6995 |
| 490.000000 MHz | 44.1148 | 32.4538 |
| 495.000000 MHz | 43.9203 | 32.2881 |
| 500.000000 MHz | 43.5374 | 32.1930 |

## Title: 450MHz Body

Model: GMRS-1100

August 07, 2002 01:04 PM

| Frequency      | e'      | e''     |
|----------------|---------|---------|
| 400.000000 MHz | 56.9067 | 40.0664 |
| 405.000000 MHz | 56.9553 | 39.7446 |
| 410.000000 MHz | 56.9165 | 39.3332 |
| 415.000000 MHz | 56.7729 | 39.0590 |
| 420.000000 MHz | 56.7428 | 38.8230 |
| 425.000000 MHz | 56.6662 | 38.4668 |
| 430.000000 MHz | 56.4449 | 38.1874 |
| 435.000000 MHz | 56.3700 | 37.9352 |
| 440.000000 MHz | 56.1597 | 37.5627 |
| 445.000000 MHz | 55.9379 | 37.3488 |
| 450.000000 MHz | 55.8608 | 37.0132 |
| 455.000000 MHz | 55.8447 | 36.8397 |
| 460.000000 MHz | 55.6155 | 36.5660 |
| 465.000000 MHz | 55.5775 | 36.3289 |
| 470.000000 MHz | 55.4807 | 36.1763 |
| 475.000000 MHz | 55.3695 | 35.9895 |
| 480.000000 MHz | 55.2467 | 35.7551 |
| 485.000000 MHz | 55.2073 | 35.6100 |
| 490.000000 MHz | 55.2394 | 35.3376 |
| 495.000000 MHz | 55.1809 | 35.1234 |
| 500.000000 MHz | 55.2892 | 35.0150 |