

ATTACHMENT Q – DIPOLE VALIDATION

■ Validation Data (1900MHz Head)

Dipole 1900 MHz

SAM II Phantom; Flat Section; Position: (90°, 90°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1609; ConvF(5.34,5.34,5.34); Crest factor: 1.0; Brain 1900 MHz: $\sigma = 1.46 \text{ mho/m}$, $\epsilon_r = 40.1$, $\rho = 1.00 \text{ g/cm}^3$

Cubes (2): SAR (1g): $41.9 \text{ mW/g} \pm 0.02 \text{ dB}$, SAR (10g): $20.9 \text{ mW/g} \pm 0.01 \text{ dB}$

Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0

Powerdrift: 0.07 dB

Comment:

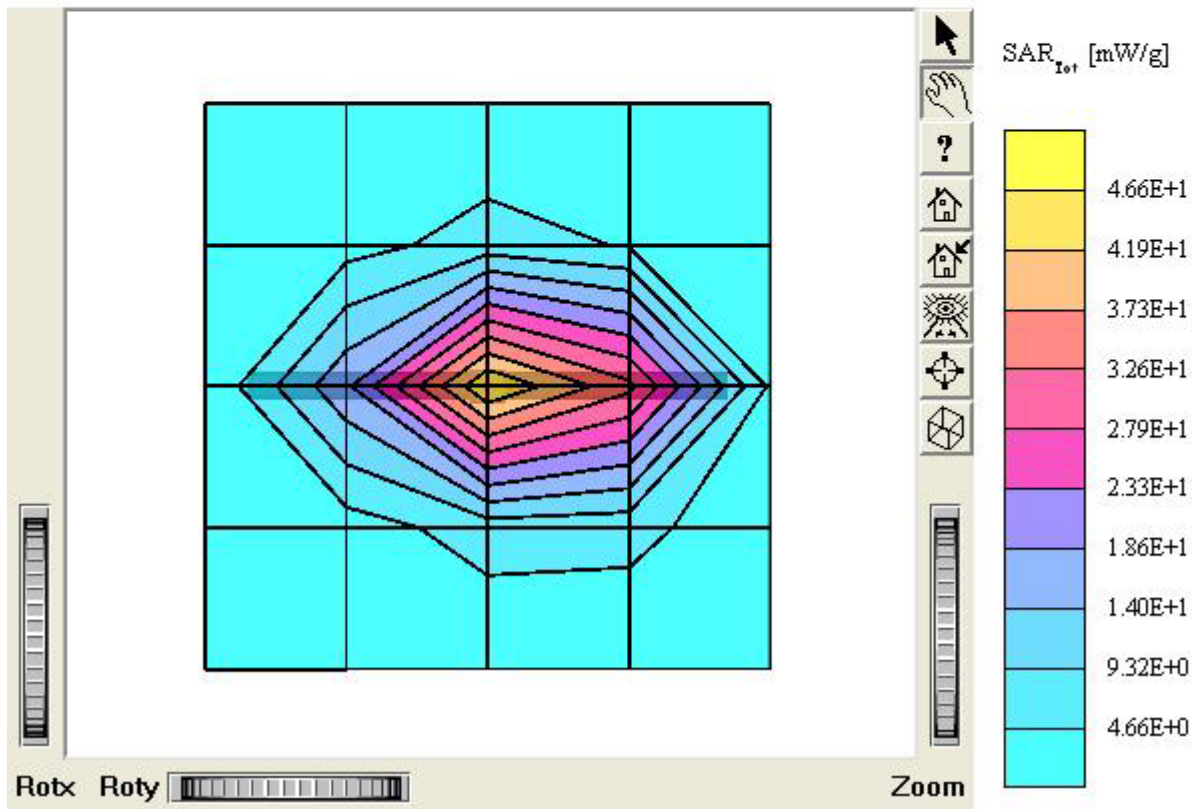
1900 MHz Brain Dipole Validation (D1900V2/ S.N: 5d032)

Antenna Input Power: 30 dBm (1 W)

HCT Co., Ltd. Brain Tissue Simulating Liquid

Liquid Temperature: 21.4°C

Date Tested : March 28, 2005



Dipole 1900 MHz

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:

Z-Axis: $D_x = 0.0$, $D_y = 0.0$, $D_z = 5.0$

Comment:

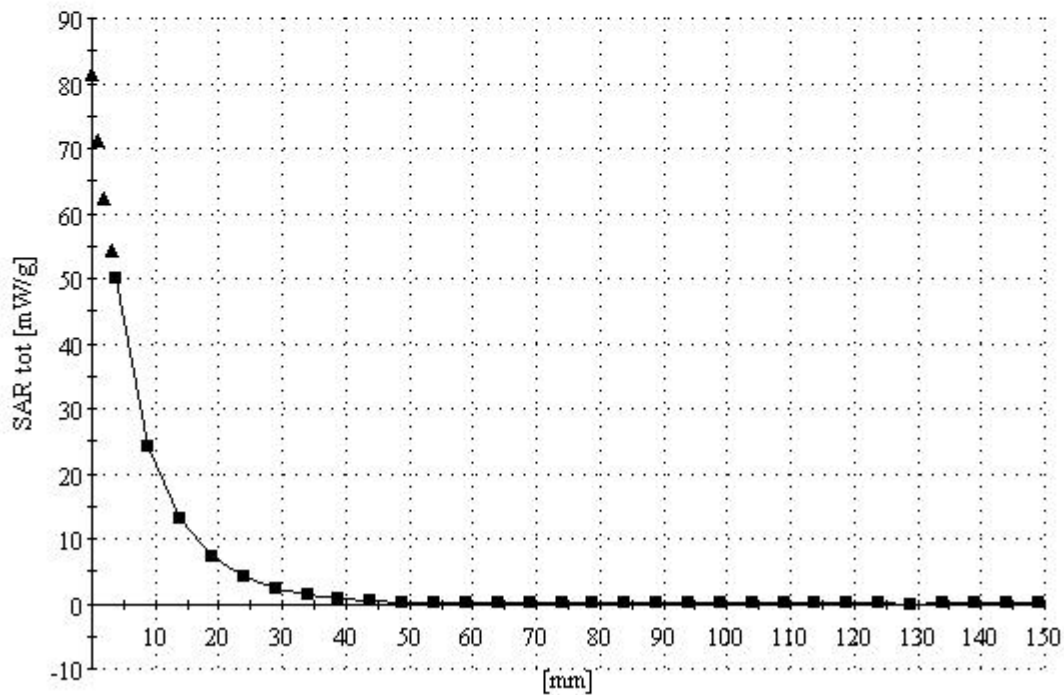
1900 MHz Brain Dipole Validation (D1900V2/ S.N: 5d032)

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■ Dielectric Parameter (1900MHz Head)**Title : EZ200****SubTitle : GSM1900 Head****March 28, 2005 09:28 AM**

Frequency	e'	e''
1.800000000 GHz	40.5067	13.5141
1.810000000 GHz	40.4452	13.5438
1.820000000 GHz	40.4257	13.5750
1.830000000 GHz	40.3661	13.6863
1.840000000 GHz	40.3433	13.7560
1.850000000 GHz	40.3094	13.7960
1.860000000 GHz	40.2510	13.8668
1.870000000 GHz	40.2147	13.8841
1.880000000 GHz	40.1571	13.8759
1.890000000 GHz	40.1067	13.8304
1.900000000 GHz	40.0650	13.8158
1.910000000 GHz	39.9988	13.8176
1.920000000 GHz	39.9432	13.8339
1.930000000 GHz	39.9101	13.8506
1.940000000 GHz	39.8659	13.8897
1.950000000 GHz	39.8116	13.9834
1.960000000 GHz	39.7736	14.0275
1.970000000 GHz	39.7496	14.1128
1.980000000 GHz	39.7177	14.1707
1.990000000 GHz	39.7104	14.1706
2.000000000 GHz	39.6468	14.1909

■ Dielectric Parameter (1900MHz Body)

Title : EZ200

SubTitle : GSM1900 Body

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Frequency	e'	e''
1.800000000 GHz	55.9282	13.3891
1.810000000 GHz	55.8026	13.4840
1.820000000 GHz	55.6903	13.5861
1.830000000 GHz	55.5528	13.6301
1.840000000 GHz	55.4985	13.6757
1.850000000 GHz	55.4335	13.7473
1.860000000 GHz	55.3246	13.7937
1.870000000 GHz	55.2559	13.8364
1.880000000 GHz	55.2212	13.8885
1.890000000 GHz	55.1152	13.9500
1.900000000 GHz	55.0891	14.0060
1.910000000 GHz	55.0073	14.0832
1.920000000 GHz	54.9234	14.1482
1.930000000 GHz	54.8414	14.1897
1.940000000 GHz	54.7758	14.2984
1.950000000 GHz	54.6294	14.3496
1.960000000 GHz	54.4981	14.4208
1.970000000 GHz	54.3760	14.4504
1.980000000 GHz	54.2726	14.4963
1.990000000 GHz	54.1894	14.5416
2.000000000 GHz	54.1148	14.5492