

ATTACHMENT Q – DIPOLE VALIDATION

€ Validation Data (835MHz Brain)

Dipole 835 MHz

SAM TP1019 Phantom; Flat Section; Position: (90°, 90°); Frequency: 835 MHz

Probe: ET3DV6 - SN1608; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Brain 835 MHz: $\sigma = 0.91$ mho/m $\epsilon_r = 41.5$ $\rho = 1.00$ g/cm³

Cubes (2): SAR (1g): 2.58 mW/g ± 0.04 dB, SAR (10g): 1.63 mW/g ± 0.03 dB,

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

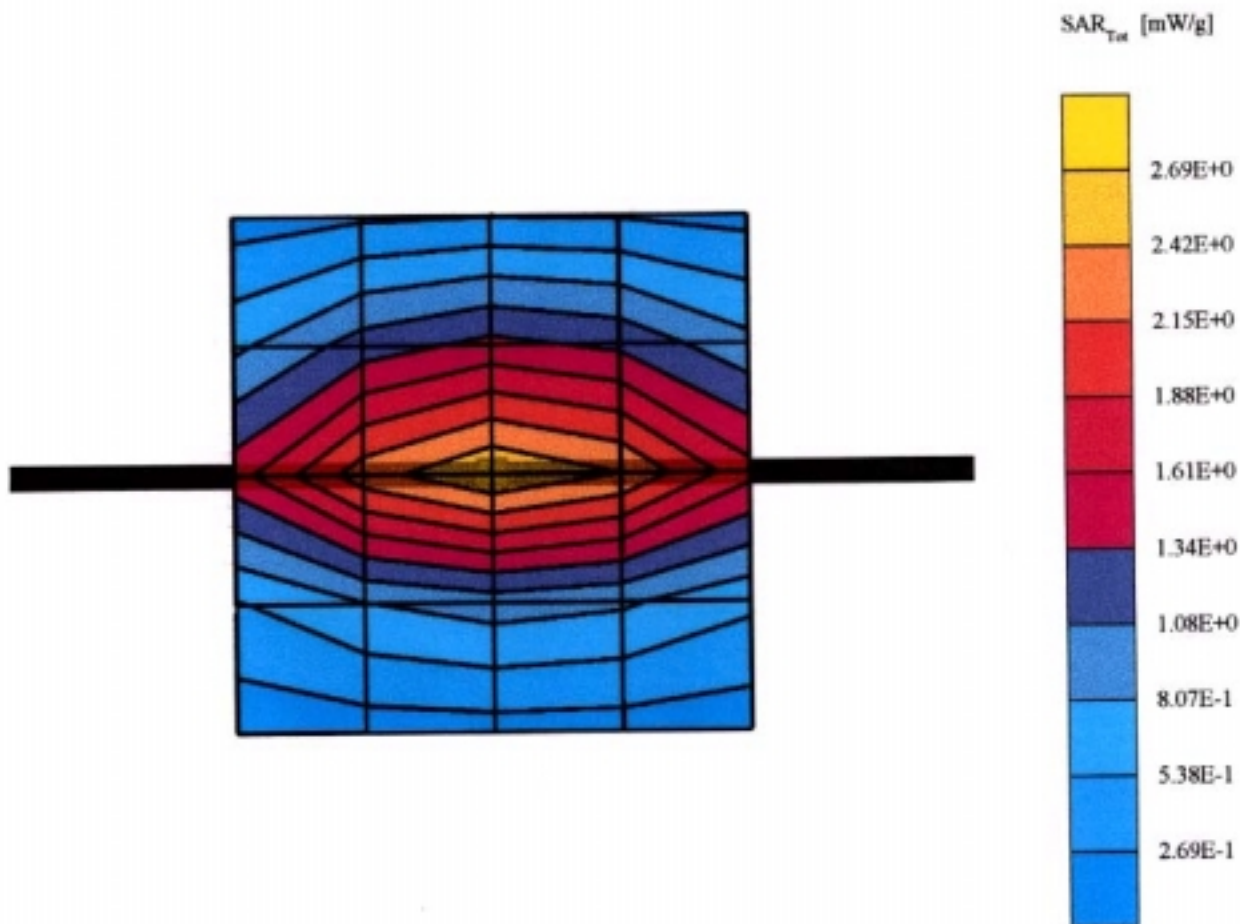
Peak: 4.15 mW/g ± 0.05 dB: Powerdrift: 0.01 dB

Comment :

835 MHz Brain Dipole Validation (D835V2 / S.N: 441)

Antenna Input Power: 250 [mW]

HCT Co., Ltd.Brain Tissue Simulating Liquid



€ Validation Data (1800MHz Brain)

Dipole 1800 MHz

SAM TP1019 Phantom; Flat Section; Position: (90°, 90°); Frequency: 1800 MHz

Probe: ET3DV6 - SN1608; ConvF(5.54,5.54,5.54); Crest factor: 1.0; Brain 1800 MHz: $\sigma = 1.40 \text{ mho/m}$, $\epsilon_r = 39.7$, $\rho = 1.00 \text{ g/cm}^3$

Cubes (2): SAR (1g): $9.92 \text{ mW/g} \pm 0.03 \text{ dB}$, SAR (10g): $5.10 \text{ mW/g} \pm 0.01 \text{ dB}$

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

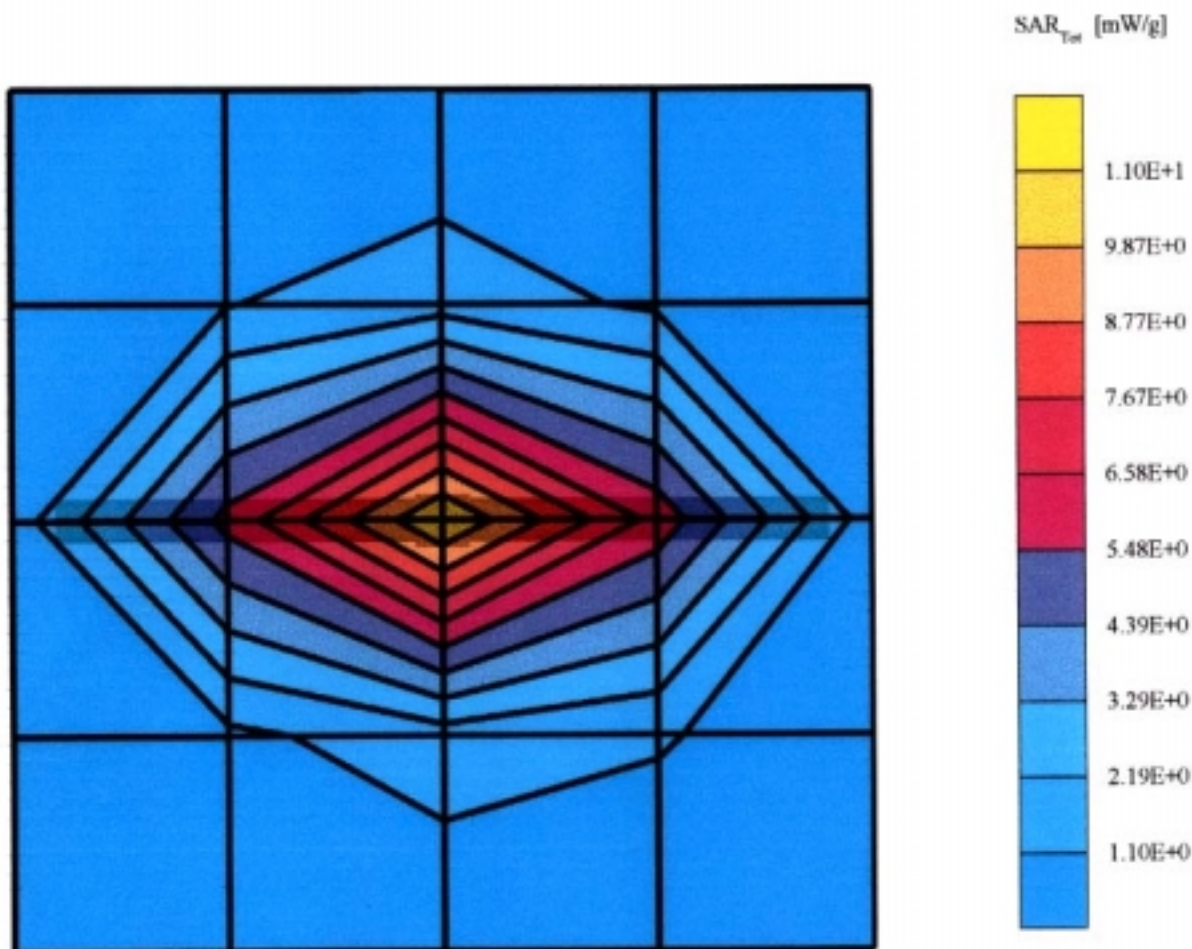
Peak: $18.8 \text{ mW/g} \pm 0.04 \text{ dB}$; Powerdrift: 0.02 dB

Comment :

1800 MHz Brain Dipole Validation (D1800V2 / S.N: 2D007)

Antenna Input Power: 250 [mW]

HCT Co., Ltd. Brain Tissue Simulating Liquid



€ Dielectric Parameter (835MHz Brain)

Title

SubTitle

February 04, 2002 01:41 PM

Frequency	e'	e''
800.000000 MHz	41.7393	19.5605
805.000000 MHz	41.7473	19.5666
810.000000 MHz	41.7409	19.5979
815.000000 MHz	41.7288	19.6249
820.000000 MHz	41.7105	19.6266
825.000000 MHz	41.6820	19.6470
830.000000 MHz	41.6095	19.6582
835.000000 MHz	41.5390	19.6532
840.000000 MHz	41.4754	19.5941
845.000000 MHz	41.3733	19.5623
850.000000 MHz	41.2767	19.5088
855.000000 MHz	41.1807	19.4715
860.000000 MHz	41.0791	19.4107
865.000000 MHz	40.9789	19.3506
870.000000 MHz	40.9169	19.2957
875.000000 MHz	40.8023	19.2668
880.000000 MHz	40.6731	19.2176
885.000000 MHz	40.5766	19.1900
890.000000 MHz	40.4992	19.1724
895.000000 MHz	40.4032	19.1556
900.000000 MHz	40.3285	19.1233

€ Dielectric Parameter (835MHz Muscle)

Title

SubTitle

February 05, 2002 11:11 PM

Frequency	e'	e''
800.000000 MHz	54.6387	20.0653
805.000000 MHz	54.5810	20.0530
810.000000 MHz	54.5527	20.1032
815.000000 MHz	54.4873	20.1551
820.000000 MHz	54.3853	20.2089
825.000000 MHz	54.2584	20.2495
830.000000 MHz	54.1541	20.2709
835.000000 MHz	54.0224	20.2423
840.000000 MHz	53.9777	20.1933
845.000000 MHz	53.9518	20.1488
850.000000 MHz	53.9153	20.1030
855.000000 MHz	53.8895	20.0698
860.000000 MHz	53.8739	20.0329
865.000000 MHz	53.8320	20.0381
870.000000 MHz	53.8730	20.0064
875.000000 MHz	53.8053	19.9950
880.000000 MHz	53.7956	19.9666
885.000000 MHz	53.7826	19.9554
890.000000 MHz	53.7086	19.9469
895.000000 MHz	53.6675	19.9259
900.000000 MHz	53.6342	19.9227

€ Dielectric Parameter (1800MHz Brain)

Title

SubTitle

February 06, 2002 07:29 PM

Frequency	e'	e''
1.700000000 GHz	40.2317	14.4237
1.710000000 GHz	41.0627	14.2606
1.720000000 GHz	42.1076	13.7284
1.730000000 GHz	42.9543	12.8556
1.740000000 GHz	43.4011	12.2492
1.750000000 GHz	42.0743	10.3213
1.760000000 GHz	43.7263	12.4310
1.770000000 GHz	43.3079	12.6252
1.780000000 GHz	41.9234	12.2370
1.790000000 GHz	40.1369	12.9477
1.800000000 GHz	39.7151	13.9854
1.810000000 GHz	39.4822	14.5487
1.820000000 GHz	39.4272	14.4199
1.830000000 GHz	39.1414	14.2651
1.840000000 GHz	38.1168	13.8976
1.850000000 GHz	38.0143	12.5972
1.860000000 GHz	39.5224	12.7021
1.870000000 GHz	38.9862	13.3030
1.880000000 GHz	35.9938	13.6301
1.890000000 GHz	38.7815	12.2416
1.900000000 GHz	37.0093	13.4375

€ Dielectric Parameter (1800MHz Muscle)

Title

SubTitle

February 07, 2002 01:54 PM

Frequency	e'	e''
1.700000000 GHz	53.2804	14.9794
1.710000000 GHz	53.5229	15.2208
1.720000000 GHz	53.8274	15.4541
1.730000000 GHz	54.1212	15.6898
1.740000000 GHz	54.4134	16.0152
1.750000000 GHz	54.4072	15.5996
1.760000000 GHz	54.2865	15.3142
1.770000000 GHz	54.0275	14.9792
1.780000000 GHz	53.7593	14.7769
1.790000000 GHz	53.4629	14.6479
1.800000000 GHz	53.2812	14.7175
1.810000000 GHz	53.2583	14.9081
1.820000000 GHz	53.3975	15.2046
1.830000000 GHz	53.6565	15.6145
1.840000000 GHz	53.9977	15.8656
1.850000000 GHz	54.2950	15.9771
1.860000000 GHz	54.5028	15.9858
1.870000000 GHz	54.5402	15.8242
1.880000000 GHz	54.3938	15.5511
1.890000000 GHz	54.1073	15.2777
1.900000000 GHz	53.7939	15.0909